RESEARCH AND RECOMMENDATIONS
OF THE

TASK FORCE
ON
RESIDENT/STAFF RATIO
IN NURSING HOMES

FEBRUARY 2002

TABLE OF CONTENTS

INTRODUCTION..... **Page 1 - 2**

A REVIEW OF CURRENT LTC STAFFING IN NS .... **Page 3 - 6**

A LITERATURE REVIEW OF BEST PRACTICES ..... **Page 7 - 9**

A REVIEW OF LTC STAFFING APPROACHES IN OTHER PROVINCES ..... **Page 10 - 12**

RECOMMENDATIONS ..... **Page 13- 18**

APPENDIX **A** : NURSING HOME PROVINCIAL SURVEY

APPENDIX **B** : RESEARCH REPORT

APPENDIX **C** : RESIDENT ASSESSMENT INSTRUMENT (RAI 2.0)

APPENDIX **D**: RESIDENT/STAFF RATIO TASK FORCE PARTICIPANTS AND SIGNATURE SHEET

INTRODUCTION

Longer life expectancies, advances in medical science, and changes to the health care delivery system are among those factors that are leading to increased care needs in the nursing home population. Increasing resident care needs bring into question the adequacy of existing staffing levels.

In April of 1999, the Canadian Union of Public Employees (CUPE), the Nova Scotia Department of Health (DOH) and Ocean View Manor nursing home reached a tentative agreement that included a commitment to form a Task Force to examine workable resident-staff ratios for Nursing Homes in Nova Scotia.

"The Department of Health will form a task force before September 30, 1999 for the purpose of making recommendations for implementation of a workable resident/staff ratio for nursing homes in Nova Scotia. This study shall be completed by March 31, 2001. The task force will be comprised of representatives of C.U.P.E. and the Department of Health as well as employers and other unions as appropriate in the continuing care sector."

As a result and with the consent of CUPE, the Task Force was expanded to include representatives from various labour organizations (ie. Nova Scotia Nurses Union (NSNU), Nova Scotia Government and General Employees' Union (NSGEU), Service Employees International Union (SEIU), and the National Automobile, Aerospace, Transportation and General Workers Union of Canada (CAW). Five employers were approached to provide input from an employers perspective, employer organizations such as the Nova Scotia Association of Health Organizations (NSAHO) and the Continuing Care Association of Nova Scotia (CCANS) were also consulted and the Government of Nova Scotia was represented through staff at the Department of Health (DOH).

With the overall objective of developing recommendations for a workable resident-staff ratio for nursing homes in Nova Scotia, the Task Force was to deliver to the Deputy Minister of Health the following:

1. A literature review on best practices in Nursing Home staffing,
2. A review of Nursing Home staffing approaches used in other provinces,
3. A review of the current Nursing Home staffing in Nova Scotia, and a
4. Report and a set of recommendations that includes and/or takes into consideration:
   - ❑ A consensus about a feasible approach for resident/staff ratio for nursing homes;
   - ❑ An assessment of where the report recommendations would place Nova Scotia relative to other provinces;
   - ❑ A definition of the cost implications of the recommendations with fiscal sustainability as an objective; and
   - ❑ An examination of important associated issues.

For the purposes of this report the Task Force came up with some general definitions due to the wide variance of interpretations of >Direct Care=. The Resident/Staff Ratio general direct care definitions for this report are as follows:

PERSONAL CARE : Provision of assistance with Activities of Daily Living (ADL=s) and Instrumental Activities of Daily Living (IADL=s), activities where hands on help, supervision, is provided to assist the resident with a task or to perform the task for the resident, (Residents may be assisted by PCW=s, LPN=s or RN=s)

EXAMPLES:

ADL=s
Feeding
Bathing
Toiletry
Dressing
Lifting and Moving
Charting

IADL=s
Assisting with Transportation

NURSING CARE: All work which can be identified and measured for a specific resident and his/her significant others. The elements of nursing care represent a series of events and activities which form part of a whole nursing intervention, from assessment to evaluation of the activity, that is, the nursing process. (Work may be completed by a RN or LPN and in some instances they may be assisted by a PCW)

EXAMPLES:
Medications
Treatments
Development of Resident Care Plans
Documentation/Charting Residents
Supervision of Staff

A REVIEW OF CURRENT NURSING HOME STAFFING IN NOVA SCOTIA

There are 5,924 licensed nursing home beds in the province spread over 75 facilities. Although actual staffing numbers are not centrally captured, the DOH approved and budgeted full-time equivalents (FTEs) total 6,438.49 for 2000-01.

Position Category	2001-2002 Approved Budget FTEs
PCW	2672.22
LPN	753.38
RN	609.72
Other	2403.17
Total	**6438.49**

From the budget figures, the average current mix of RN / LPN / PCW staff in Nova Scotia nursing homes is 15% / 19% / 66%, respectively.

Over the past 6 years, the DOH has added 856.03 FTEs to the nursing home sector. Further FTEs were added when new beds were established.

Position	Total Budget FTE=s at Mar31/96	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	Total Budget FTE=s at Oct 31/01	Total New FTE=s	% Increase in FTE=s 96 - 01
PCW	2386.81	45.81	50.35	50.61	52.13	56.62	29.89	2672.22	285.41	10.68
LPN	485.60	45.52	106.31	52.65	32.90	22.45	7.95	753.38	267.78	55.14
RN	505.58	29.61	29.46	25.29	15.91	2.55	1.32	607.72	104.14	20.60
Other	146.90	10.00	8.15	4.50	4.23	3.65	3.00	180.43	33.53	22.83
Totals *	**5582.46**	**141.79**	**197.26**	**190.30**	**152.47**	**118.90**	**55.31**	**6438.49**	**856.03**	**15.33%**

* Note: The >Total= incorporates all FTE=s (for all classifications) in Nursing Homes.

The Homes for Special Care Act specifies 24 hour RN coverage for all nursing homes greater than 30 beds, and DOH policy goes further to require 24 hour RN coverage regardless of nursing home size. DOH policy further requires a minimum of 2.1 PCW direct care hours per (NS Level II) resident day, however, it is silent on minimum direct care hours per resident day for registered (ie. RN/LPN) nursing staff.
Due to the lack of set standards for direct care hours, the DOH has created targets which act as a goal to be met by all nursing homes.

Currently, the DOH uses the following targets when establishing approved facility staffing budgets:

RN 0.5 hours of care per resident day
- 1 RN per shift per 35 residents for days and evenings
- 1 kN per shift per 50 residents for nights

LPN 0.5 hours of care per resident day
- 1 LPN per shift per 35 residents for days and evenings
- 1 LPN per shift per 50 residents for nights

PCW 2.25 hours of care per resident day

For facilities with designated Level 1 Care units:
- PCW 1.5 hours of care per resident day

For facilities with designated Dementia Special Care Units:
- PCW 2.5 hours of care per resident day

No overall Provincial Human Resources Management Plan exists for the nursing home sector, nor are nursing homes, at this time, expected to regularly report human resources statistics to the DOH. The Task Force decided to administer a survey to nursing homes to better understand the current nursing home staffing issues in Nova Scotia. The response rate was 66%. Some responses were incomplete.

Facilities reported that the greatest challenges they face in staffing are:

- $ Recruitment
- $ Increasing care needs of residents
- $ Inadequate levels of approved staff and staff funding.

In addition, the physical design of the nursing home, lack of adequate and appropriate equipment, and unfunded nursing home operating expenses were also identified as major contributors to ensuring adequate staffing in their facilities.

Most facilities reported that RNs were the most difficult to recruit and retain, followed by LPNs and then PCWs. The factor that most contributed to these recruitment and retention challenges was reported to be the lack of trained people such as:

- $ LPNs with pharmacare training
- $ PCWs with the Continuing Care Assistant course
- $ the overall shortage of RNs and LPNs.

However, other significant contributing factors noted included: the facility's inability to offer full time work, the facility's remote location, salary and benefit packages that are not competitive, and competition from such agencies as the VON, home care, and the acute care sectors.

Forty-three percent of facilities stated that the current average mix of RN / LPN / PCW staff for direct care in Nova Scotia nursing homes is appropriate. [Note: At the time of the survey, the available information on current staff mix RN/LPN/PCW was (17% / 13% / 70%)]. The remaining facilities were: somewhat split on whether the RN component should be slightly increased or slightly decreased; clearly supporting a significant increase in the LPN portion with most suggesting an increase to 20% or more; and a clear reduction in the PCW component to offset the desired LPN increases.

Three-fifths of facilities reported that RNs spent 80% or more of their time on direct resident care while three-fourths of LPNs were involved in direct resident care 90% or more on their time. About a quarter of facilities reported that their RNs spent 60% or less of their time on direct resident care. In addition to performing resident care, all facilities reported that PCWs were involved in assisting residents at meal time and about half of the reporting facilities indicated that the PCWs assisted with laundry and housekeeping. In turn, about half of facilities reported that dietary, housekeeping, and laundry staff perform duties outside their department.

Two-thirds of reporting facilities indicated that they maintained a resident to PCW staff ratio by shift. The average for: the 8am-4pm shift was 1:6.8; the 4pm to 12midnight shift was 1:10.1; and the midnight to 8am shift was 1:19.1. A little more than half the reporting facilities indicated that they experienced difficulty in staffing PCW positions for certain shifts. In particular, coverage for summer vacation is the most challenging, followed by weekend shifts, Christmas, sick relief and other vacations.

One half of reporting facilities indicated that they maintained a resident to RN and LPN staff ratios by shift. The answers varied considerably, however, facilities in the 40-50 bed range had a RN and a LPN each per shift, while some others reported a 1 RN per 30 residents and 1 LPN per 12 residents on the day shift.

Some homes have been unable to recruit staff to fully supply their budgeted staffing levels, while a larger number of homes have found it necessary to hire staff in excess of their approved staffing levels. Only 2 out of the 36 homes that responded stated that their approved FTEs equaled their utilized FTEs. Twelve noted their approved FTEs were more than their utilized FTEs. However, 9 out of 12 had a variance of 2.0FTE or less. The remaining 60% of the reporting homes noted that their approved FTEs were less than their utilized FTEs, with 13 of those 22 facilities noting a variance of 2.0FTE or less.

For the complete survey results see **Appendix A**

A LITERATURE REVIEW OF BEST PRACTICES

The Task Force delegated the work of conducting a literature review on resident-staff ratio in nursing homes to staff of CUPE and NSAHO. Their review found that a single resident-staff ratio can not be universally applied to all care settings. There are several factors that contribute to the determination of appropriate direct care staffing levels to support the delivery of quality client care, including but not limited to:

- the variety of direct care staff available
- the existence of non-direct care staff available
- the experience and education of staff
- the roles and responsibilities of direct care staff
- the intensity and complexity of resident care needs
- the physical layout of the nursing home
- the availability of time saving equipment and supplies
- the quality of care expected

A real lack of empirical research was found to exist on the relationships among resident-staff ratios, quality of care, and cost. A recent US report has begun to shed light on this important topic, and prospects have been identified for Canadian work on this topic also.

In the United States, 95% of nursing homes are reimbursed via a prospective payment system. Payment is based in large part on the facilities resident case-mix which is derived through the implementation of the Resident Assessment Instrument (RAI 2.0) and the Resource Utilization Grouping System RUG-III). It is the RAI 2.0 assessment data that is used by the RUG-III case mix classification system to categorize residents with similar care needs. Using the RUG-III system, the US government is able to equitably fund nursing homes by recognizing the resource intensity of the care needs of their residents.

While recognizing case mix in the development of staff-resident ratios is critical, it cannot be used alone to address the question of whether funding is sufficient to deliver adequate staffing levels. The US Health Care Financing Administration (HCFA) was federally mandated by law to deliver a report on whether there was an Aanalytical justification for establishing minimum nurse staffing ratios in nursing homes@. In 2000, HCFA delivered the report entitled *Report to Congress: Appropriateness of Minimum Nursing Staff Ratios in Nursing Homes*. The term Anurse@ is used here to encompass RN, LPN, and PCW or nursing assistant level staff. The first phase of the report is complete and examines the association between nurse staffing levels in nursing homes and quality of care.

Multivariate analyses and time motion studies yielded strong findings on the relationship between staffing and quality. The multivariate analyses, which used limited data from a few states, suggested that "minimum" staffing levels may reduce the likelihood of quality problems in several areas but higher "preferred minimum" levels existed above which quality was improved across the board.

Staff	Minimum Staffing Level	Below Standard
Aide	2.00 hrs/resident day	54%
RN and LPN	0.75 hrs/resident day	23%
RN	0.20 hrs/resident day	31%
Total	2.95	
	Preferred Minimum Level	
Aide	2.00 hrs/resident day	54%
RN and LPN	1.00 hrs/resident day	56%
RN	0.45 hrs/resident day	67%
Total	3.45	

Source: HCFA (2000) *Report to Congress: Appropriateness of Minimum Nursing Staffing Ratios in Nursing Homes* (Page E.S.-6)

Our Notes:

- Higher/lower thresholds were identified for different case mix categories.
- 2.0 hrs/resident day for Aide staff is the minimum regardless of case mix.
- 54% of US nursing homes are below the 2.00 hrs/resident day for Aide staffing.
- The figures in the table are not US government approved or recommended standards.
- In phase 2, the US government plans to do further research to identify alternative minimal thresholds and optimal case-mix adjusters.

Time motion studies were used to estimate the time required to implement five specific daily care services that have been linked to good resident outcomes. The minimal Nursing Aide (ie. PCW) time associated with "optimal" care in five specific services areas (changing wet clothes, toiletting, exercise, feeding and morning care) was 2.9 direct care hours per resident day. This optimal care standard is currently met by only 8% of US nursing homes.

Although the US has begun to build a body of empirical research on the staff-resident ratios, the first phase of the US report did not include any specific recommendations. The second phase of the report will conduct further research on more states in order to identify minimum thresholds and optimal case-mix adjusters, and to examine the cost and benefits associated with establishing staffing minimums.

Canadian Initiatives:

In Canada, the Advisory Committee on Health Human Resources report entitled *Nursing Strategy for Canada* (2000) calls for the establishment of a Canadian Nursing Advisory Committee. One of the objectives of this proposed committee would be to improve nurse's quality of work life through improved nurse/patient ratios to address workload concerns, etc. The Committee was established in February 2001.

Also in Canada, Human Resources Development Canada has commenced a national nursing sector study. The Atlantic Advisory Committee on Health Human Resources is currently collaborating on developing a strategy for health human resources planning in the region. Each province is currently developing plans (developing inventories of supply, identifying needs and forecasting future supply and demand). These provincial plans will be rolled into an Atlantic plan.

A REVIEW OF NURSING HOME STAFFING STANDARDS USED IN OTHER PROVINCES

The Task Force delegated the responsibility of conducting a cross-country survey on provincial standards for direct care in nursing homes to staff from CUPE and NSAHO. Responses were received from six of nine provinces contacted. For the provinces who did not respond, 1997 data was presented. For the researchers' complete findings please see Appendix B.

Drawing comparisons in staffing standards across the country is impaired by several factors including: the quality to which other provinces completed our survey, regionalization and the level to which provinces are involved in funding, and different funding methods (eg. global budgeting, case-mix payment systems, and population needs based funding methods). Due to these factors, we have not been able to draw useful comparisons with Ontario, British Columbia, Alberta, Saskatchewan, and PEI. We were, however, able to compare existing Nova Scotia information with Manitoba, New Brunswick, and Newfoundland.

Standards for Direct Care Hours (includes RN, LPN, & PCWs)

Province	Level 1*	Level 2* (NS Level I)	Level 3* (NS Level II)	Level 4*
NS	N/A	Budget Target Only 1.5 hours PCW others unspecified	Budget Target Only 3.25 hours *15:15:70 (ie. .5RN, .5LPN & 2.25PCW)*	N/A
MB	0.5 hours *10:0:90*	2.0 hours *10:20:70*	3.5 hours *20:15:65*	3.5 hours *20:15:65*
NB	N/A *N/A*	2.5 hours *20:40:40*	2.5 hours *20:40:40*	N/A *N/A*
NF	0-1 hours *100% PCW*	2.0 hours *100% PCW*	3.0 hours *20:80(LPN+PCW)*	3.2 hours *20:80(LPN+PCW)*

* Each province has a different method of classifying residents into levels of care. Staffing levels vary by level of care. For the purposes of the survey, the provinces were given a set of standard level of care definitions and were asked to fit their information to those categories.

For Manitoba, New Brunswick, and Newfoundland, the standards for direct care hours and the RN:LPN:PCW ratios are used to calculate the funding for direct care staffing. Nova Scotia does not uniformly use staffing standards to calculate approved budgets. Rather, Nova Scotia uses targets or guidelines and considers the unique circumstances of each home when approving budgets. Therefore, to compare NS with MB, NB, and NF, we must use Nova Scotia's actual budgeted FTE's for RN's, LPN's, and PCW's and then calculate the same using the formulas of the three comparison provinces.

Using the cross-country standard for levels of care, the residents of Nova Scotia's nursing homes are approximately 80% Level 3 and 20% Level 2. In the table below, we outline the actual budgeted FTE's for NS effective September 30, 2001. The NS FTE's were based on 5,915 beds and distribution of care levels of 80% Level 3 and 20% Level 2. Using NS parameters for beds and care levels, we have calculated how many budgeted FTE's there would be if we applied the standards from each of the three comparison provinces. It is important to note that neither Nova Scotia or the comparison provinces include Directors of Nursing, In-Service Coordinators, or other administrative nursing staff in the calculation of direct care hours. It is also important to note that figures shown are before relief staffing in all provinces. Approximately 18% would need to be added to accommodate relief staffing for all provinces.

Comparison of NS Actual Budgeted Nursing Home FTEs (not including Relief) Against Calculated Figures*
*(The Calculated Figures use Standards from Other Provinces Applied to NS Beds and Care Levels)

Province	RNs	LPNs	PCWs	Total	Notes
Nova Scotia (Actual)	515	638	2,265	3,418	Note 1
(New Brunswick Formula)	552	1,104	1,104	2,760	Note 2
(Newfoundland Formula)	620	2,232	248	3,100	Note 3
(Manitoba Formula)	664	554	2,325	3,543	Note 4

Note 1	*NS actual budgeted FTEs as of Sep 30, 2001* *The NS actuals were based on 5,915 bed.* *The proportion of Level 3 residents in NS homes is est. to be 80%, Level 2 is 20%.*
Note 2	*NB formula is [beds x 2.5 direct care hours (Level 2/3) x 365 / 1950] & use a ratio of (20%RN:40%LPN:40%PCW) for Level 2 & 3.*
Note 3	*NF formula is [(beds x 2.0 direct care hours (Level 2) x 365 / 1950)+ (beds x 3.0 direct care hours (Level 3) x 365 / 1950)] & use a ratio of (20%RN & 80%LPN/PCW) for Level 2 & 3. The LPN/PCW part is actually 90% LPNs.*
Note 4	*MB formula is [(beds x 2.0 direct care hours (Level 2) x 365 / 1950) + (beds x 3.5 direct care hours (Level 3) x 365 / 1950)] & use a ratio of (10%RN:20%LPN:70%PCW) for Level 2 & (20%RN:15%LPN:65%PCW)for Level 3* *For comparability we have used 1950 hours where Manitoba actually uses 2015 hours.*

The comparison shows that Nova Scotia's RN/LPN/PCW actual staffing is higher overall than it would be if Nova Scotia was to use the funding formulas of either New Brunswick or Newfoundland. However, both New Brunswick and Newfoundland would fund a higher level of licensed (RN/LPN) staff than Nova Scotia and a lower level of non-licensed (PCW) staff.

Further, the comparison shows that Nova Scotia's RN/LPN/PCW actual staffing is lower than it would be if Nova Scotia was to use the funding formula employed by Manitoba. Although not scientifically pure, Manitoba's formula would produce PCW hours of 1.4 for Level I and 2.275 for Level II within Nova Scotia (Level II & III in the chart on page 9) . Overall Manitoba's formula would yield an increase in staffing of 125 FTEs or a 3.7% increase over existing NS levels. About half or 60 of the 125 FTEs would be PCW staff. The Manitoba calculation also indicates that NS would fund about 29% less RN staff and about 12% more LPN staff.

For the complete findings of the research report please see **Appendix B**

RECOMMENDATIONS

The Resident/Staff Ratio Task Force met on five separate occasions and completed a literature review on best practices in nursing home staffing, a review of nursing home staffing approaches in other provinces as well as a review of the current nursing home staffing in Nova Scotia. This also included a review of a United States Report to Congress on the appropriateness of minimum nurse staffing ratios in nursing homes. The Task Force reviewed the findings and on August 15th, 2001 came to a consensus about a feasible approach for resident/staff ratio for nursing homes and homes for the aged in Nova Scotia. The Task Force recommendations are as follows:

$ ASSESSING RESIDENT CARE NEEDS

The Department of Health should implement the Resident Assessment Instrument (RAI) 2.0 province wide in order to provide good information that assists staff in developing appropriate care plans for residents and more accurately defines resident care needs individually and collectively. After the implementation of RAI 2.0 a multi-disciplinary monitoring committee should be established to help monitor and assess the safe levels of resident care

Recommendations:

1. The Department of Health should implement the Resident Assessment Instrument (RAI) 2.0 province wide. The estimated cost of implementing RAI 2.0 is approximately $3.3 million which likely would be spread over two years and ongoing operating costs of $0.7 million per year.

   Translating to provision of Care

2. The Department of Health should establish a multi-disciplinary monitoring committee whose task will be to determine and monitor adequate and safe levels of resident care.

For a complete overview of the Resident Assessment Instrument (RAI) Demonstration Project please see **Appendix C**

$ STAFF RECRUITMENT AND RETENTION

Nova Scotia=s Nursing Strategy was announced on April 3, 2001. The $5 million strategy, aimed at recruitment and retention of registered nurses and licensed practical nurses, focuses on four key areas B support to practical nurses, support to student nurses, enhancing recruitment resources and developing and utilizing the nursing work force.

A Provincial Nursing Recruitment Website was created in June 2000 to provide a venue for job positions for all Registered Nursing and Licensed Practical Nursing positions throughout the province. This is available for all sectors within the Health Care System.

An Atlantic Advisory Committee on Health and Human Resources has been in existence since 1975. Its purpose is to seek advice from Nova Scotia, Prince Edward Island, New Brunswick and Newfoundland with respect to the need for any new health education programs in universities and community colleges and also to provided advice to the Deputy Minister of Health on all matters relating to health human resources policy and planning within the Atlantic region.

The Task Force strongly believes that in order to recruit and retain staff in Nursing Homes there needs to be an anticipation of staffing needs, based on reliable data and an effort to coordinate a strategic approach to address these needs. The Task Force believes that the Department of Health must support the development of a comprehensive, strategic, coordinated and sustainable Health Care Human Resource Plan for all program areas.

Currently a provincial Health Human Resource Information System is being built to provide the necessary data base upon which to make appropriate evidence based decisions. This data base should incorporate nursing homes to address such areas as:

- $ turnover rates (specifically the reasons for leaving), retirement forecasting, use of sick leave, accident data (WCB et al), and current staffing allocations, all of which will all help the system to predict future needs as well as the identification of present needs.

- the identification of system educational and training needs for entry level and continuing education tailored to meet the residents needs. It is also important to make this education and training more available to the staff in the facilities and/or communities. The provision of funding for education and training will become increasingly more important.

- a system wide Health Recruitment and retention strategy should be created and implemented, so that we are not robbing from one sector to another, but have strategies to provide adequate staffing numbers for all sectors within the health care system. This would raise the profile of the worker in continuing care which is a key element of these strategies.

Recommendations:

3. The Department of Health should ensure a Health Human Resource Plan for continuing care is developed as a priority and as part of an overall Health Human Resource Plan.

4. The Department of Health should ensure that training needs are an integral part of the plan.

5. The Department of Health should explore options for providing Continuing Care Assistant/Personal Care Worker training in nursing homes.

- **NEW EQUIPMENT**

In the 2001/02 fiscal year Nova Scotia redirected Federal Funds in the amount of $1.2 million dollars for Bed Lifts and resident equipment which is to be allocated for all Nursing Homes and Homes for the Aged in the province. The existence of appropriate assistive devices is integral to maximizing the effectiveness of staffing levels.

The Task Force recommends that additional funding be provided for assistive devices such as ceiling lifts, bed replacements and whirlpool baths (high/low). This would be beneficial not only for the residents but also for the staff thus decreasing Workers' Compensation Board claims and injuries causing sick leave. This would also provide a more attractive workplace for recruitment and retention purposes. It is worth noting that some provinces are adopting ceiling lifts as a standard in nursing homes.

Recommendations:

6. Additional funding for new equipment in nursing homes should be provided in fiscal year 2002/03 commensurate with an assessment of the impact of the $1.2 million and fiscal 02/03 budget requests from nursing homes.

7. Anticipated work on the funding formula for nursing homes should ensure adequate funding for equipment replacement.

8. The use of ceiling lifts in other provinces should be investigated.

$ PHYSICAL SPACE

Outdated physical space in nursing homes, in addition to the challenges it can present for residents, can effect the work life and efficiency of staff with an obvious impact on the levels of staffing required in a given facility.

Recommendations:

9. Recommendations in the Report of the Advisory Committee on Long Term Care Infrastructure should be pursued.

For the complete report of the Advisory Committee on Long Term Care Infrastructure please see the Department of Health Website.

• APPROPRIATE FUNDING OF EXPENSES IN NURSING HOME BUDGETS

Inappropriately funded expenses in nursing home budgets often result in homes being unable to fund their full approved complement of staff. For example, the current funding formula includes 15 vacation days, 15 sick days and 11 statutory holidays which may not reflect the workplace. As another example, the growth of Workers' Compensation premiums is not fully funded in nursing home budgets. *In the 2001/02 fiscal year the Department of Health provided an additional $350.00 per bed to help offset operational expenses.

Recommendations:

10. Necessary expenses in nursing homes should be adequately funded in their approved budgets in the annual budgeting cycle.

- **EXPLORE CHANGES IN STAFF ROLES/MIX**

While many have identified the possible merit of revising staff roles and mix in nursing homes, there is no clear consensus for action at this time. Scope of practice must be adhered to until amended through the proper process. Implementation of the RAI 2.0 may provide information that identifies areas to explore in staff roles and mix. Development of Health Human Resource Planning may also bring opportunities to light.

Recommendations:

11. The Department of Health should continue to examine the appropriate methodology for maintaining the correct distribution of professional and para-professional resources in nursing homes.

$ **STAFFING LEVELS**

Over the past six years the Department of Health has approved funding for approximately 850 new Full Time Equivalents in nursing homes in recognition of changing care needs. These increases are positive, however, in order to keep up with the ever increasing level of care of the residents, which has a direct impact on the number of staff that are needed in this sector, additional staff are essential.

Currently, the minimum hours of care by Personal Care Workers which has been determined and funded by the Department of Health is 2.1 hours of care per Level II resident per day. As outlined earlier, a review of literature, best practices and activity in other Provincial jurisdictions provides limited definitive guidance in relation to appropriate staffing levels. Nova Scotia is between the minimum and preferred minimum levels out lined in the HCFA report to Congress and approximately 4% below the levels produced by the Manitoba formula. The implementation of the Resident Assessment Instrument will enhance Nova Scotia's ability to determine and allocate resources appropriately. With the forgoing in mind the Task Force felt that it was important to flag the need to further increase the resources currently required to meet the increasing care needs of nursing home residents.

Recommendations:

12. As a result of the continuing evolution of research and study in this area it is recommended that the Department of Health; continue to monitor nursing home staffing studies in Canada and the United States.

13. There was consensus within the Task Force that staffing levels needed to be addressed in light of the changing care needs of nursing home residents. However, there was not a consensus on a recommended minimum funded level of PCW care for level II residents within the Task Force. The recommendations of the majority of the Task Force, expressed through the Canadian Union of Public Employees (CUPE) is that the minimum funded level of PCW care per level II resident should immediately approximate the preliminary observations of phase one of the HCFA study (see page 7) at a level of 2.8 hours of PCW care per level II resident.

To: Administrators, All Nursing Homes & Homes for the Aged
From: Dean Hirtle, Director - LTC
Date: May 30, 2001
Re: **Task Force on Staffing Ratios - Update & Survey**

As you are probably aware, a Task Force on Staffing Ratios has been meeting since last September. (Copy of Terms of Reference attached).

The Task Force has worked through its Terms of Reference and compiled available information in a research report. A draft copy will be forwarded to you for your review and comment.

While there are efforts underway nationally, both in Canada and the United States, to achieve greater understanding about resident/staff ratios in long term care, there is no definitive answer to the issue of appropriate ratios at this time.

In addition, the research has shown there are several factors quite apart from approved staffing complements which influence the ability to maintain adequate staffing in nursing homes presently.

The Task Force has concluded that surveying Nova Scotia homes on this matter would be helpful in determining its recommendations on staffing issues.

Enclosed please find a survey for your consideration. It would be appreciated if you could fax a copy of this completed survey to my attention at 424-0558 by June 15, 2001. Feedback from this survey likely will influence recommendations of the Task Force.

If you have any questions on this matter, please feel free to contact me at 424-4476 or Julie Quigley at 424-0066.

Thank you.

Dean Hirtle
Director
Long Term Care

c: NSAHO
CCANS
Task Force Members
LTC Advisors

DRAFT
TERMS OF REFERENCE
TASK FORCE ON STAFFING
IN LONG TERM CARE

OBJECTIVE:

To develop recommendations for a workable resident-staff ration for nursing homes and homes for the aged in Nova Scotia.

MEMBERSHIP:

Four representatives from unions representing RN's LPNs, PCWs et al in the province; four representatives from LTC sector employers, four representatives from the Department of Health.

Task force to be chaired by the Department of Health.

TIME FRAME:

Report to be submitted to the Deputy Minister of Health by September 30, 2001.

DELIVERABLE:

The work plan will include:

1. A literature review on best practices in LTC staffing.
2. A review of LTC staffing approaches in other provinces.
3. A review of the current LTC staffing in Nova Scotia.

Report recommendations should include and/or take into consideration the following:

1. A consensus about a feasible approach for resident/staff ratio for nursing homes and homes for the aged in Nova Scotia.
2. An assessment of where the report recommendations would place Nova Scotia relative to other provinces.
3. Definition of cost implications of recommendations would place Nova Scotia relative to other provinces.
4. Examination of important associated issues.

Revised November 22, 2000

Survey on Staffing Ratios

(May, 2001)

Facility: _____ ***Current number of clients***

Contact Person: _____ *(please print)* **Level I** _____

Date: _____ **Level II** _____

1. (a) Which of the following factors is currently presenting a challenge to adequate staffing in your facility? *(Please check all that apply)*

	(d)	(b) *Ranking Priority*
A. Ability to recruit staff	____	____
B. Ability to retain staff	____	____
C. Need for new equipment e.g. beds/lifts	____	____
D. Physical space design	____	____
E. Unfunded operating and benefit expense increase	____	____
F. Need for more approved staff in budget	____	____
G. Need for changes in roles of staff	____	____
H. Increasing care needs for residents	____	____
I. Other, specify: _____	____	____

(e) For all factors you identified in question 1. (a) that are presenting a challenge to staffing in your facility, rank them above in priority order from your facility's point of view. *(#1 is highest priority)*

(f) If you checked A in question (a) above, indicate staff who are difficult to recruit *(check all that apply):*

		Difficulty	
RNs	_____	____	____
LPNs	_____	____	____
PCWs	_____	____	____
Other , specify:	_____	____	____
	_____	____	____

(g) If you checked B. in question (a) above, indicate staff who are difficult to retain:

RNs		____	____
LPNs		____	____
PCWs		____	____
Other, specify:	_____	____	____
	_____	____	____

..../2

1. (e) What factors contribute to recruiting and retaining challenges in your facility?

_____

_____

(f) If you checked F. in question (a) above, indicate areas where additional staff are required and indicate their priority. *(#1 is highest priority):*

	Add Staff	*Priority*
Administration	_____	_____
Resident Care	_____	_____
Program Support	_____	_____
Dietary	_____	_____
Housekeeping	_____	_____
Laundry	_____	_____
Building Operation and Machinery	_____	_____
Other, specify: _____	_____	_____

(g) If you checked (G) in question (a) above, please outline your ideas regarding this issue, eg. Need for more collaboration between staff in various departments, etc._____

_____

_____

_____

_____

_____

2. The average current mix of Rn/LPN/PCW staff for direct care in Nova Scotia nursing homes is 17%/13%/70%, respectively. Is your current mix of RN/LPN/PCW staff appropriate fro your facility? Yes:___ No:___

If No, how would you change the mix? RN:___; LPN___; PCW___.

*Comments:*_____

_____

3. What percentage of time do RNs and LPNs in your facility spend on direct resident care? RNs:_____% LPNs:_____%

Direct resident care includes:
-Medication distribution
-Resident assessment
-Direct Nursing care
-Assisting residents with ADLs

.../3

3. (b) In addition to performing resident care, do your PCWs:
(Check all that apply)

-assist residents at meal time	____	____
-assist with laundry	____	____
-assist with housekeeping	____	____
-other, specify:_____	____	____

- Do dietary, housekeeping and/or laundry staff perform duties outside their department?
___Yes ___No

If *Yes*, please specify, eg. Housekeeping staff help assist residents to the dinning room for meals.

_____
_____
_____
_____

4. (a) Is there a ratio in your facility for level II residents to PCWs by shift?

eg.	8 am	-4 pm	1 to 8	___Yes ___No
	4 pm	-12 am	1 to 12	
	12 am	-8 am	1 to 15	

If yes, specify:

Shift	Ratio
_____	_____
_____	_____
_____	_____

(b) Are you experiencing difficulty in staffing PCW positions for certain shifts or certain times of the year? *Yes:*___ *No:*___

If yes, please explain:_____
_____
_____
_____

(c) Is there a ratio in your facility for residents to RNs and/or LPNs by shift? *Yes:*___ *No:*___

If yes, please explain:_____
_____
_____

Survey on Staffing Ratios

	APPROVED FTEs (1)	UTILIZED FTEs (2)	VACANT FTEs (3)
Administration			
• All Staff			
Resident Care			
• Director of Care/Nursing			
• RNs			
• LPNs			
• PCWs			
Subtotal			
Program Support			
• Occupational Therapist			
• Physiotherapist			
• Physio Aides			
• Activity Staff			
Subtotal			
Dietary			
• Director			
• Cooks			
• All other Staff			
Subtotal			
Environmental Services			
• All Directors (Supervisors)			
• All Other Housekeeping Staff			
• All other Laundry Staff			
Subtotal			
Building Operations & Maintenance			
• Director/Supervisor			
• All other Staff			
Subtotal			
Total			

•FTEs in Approved Budget from Health.

•Includes all staffed positions including vacancies for which recruitment s underway.

•Staffed FTEs which are currently vacant. Please note clinic vacancies with an asterisk. Chronic vacancy is a permanent position which remains vacant despite active recruitment efforts for 90 days or longer.

Task Force on Staffing in Long Term Care

Analysis of Responses to

Survey on Staffing Ratios

July, 2001

Responses as of June 20, 2001

- **48 of 72 facilities responded**
- **66% of the facilities responded**

Notes on Numbers

- **Many responses were not complete**
- **Therefore numbers do not all add up to 48, etc.**

Survey on Staffing Ratios...

3. *(a) Which of the following factors is currently presenting a challenge to adequate staffing in your facility?*

(b) For all factors you identified in question 1. (a) that are presenting a challenge to staffing in your facility, rank the above in priority order from your facility's point of view. (#1 is highest priority)

		Number of Facilities Reporting Factors			
		Total	**Ans#1**	**Ans#2**	**Ans#3**
A.	Ability to recruit staff	38	15	8	5
B.	Ability to retain staff	24	2	3	2
C.	Need for new equipment eg. Beds/lifts	26	0	2	5
D.	Physical space design	27	2	2	4
E.	Unfunded operating and benefits expense increase	29	8	9	2
F.	Need for more approved staff in budget	41	5	13	8
G.	Need for changes in roles of staff	20	0	1	1
H.	Increasing care needs for residents	39	10	4	10
I.	Other	5	0	0	2

Survey on Staffing Ratios...

1. (c) If you checked A. in question (a) above, indicate staff who are difficult to recruit:

		Number of Facilities		
	TOTAL	**Rank#1**	**Rank #2**	**Rank #3**
• RNs	36	18	4	0
• LPNs	29	3	13	3
• PCWs	23	0	4	12
• Other	4	1	0	0

- *If you checked B. in question (a) above, indicate staff who are difficult to retain:*

	Number of Facilities
• RNs	25
• LPNs	15
• PCWs	10
• Other	3

Survey on Staffing Ratios...

1. *(e) What factors contribute to recruiting and retaining challenges in your facility?*

- Lack of trained people in area, eg, LPN pharmacare training; PCW/CCA course 15
- Can only offer casual or part time work 8
- Remote location 8
- Competition, eg. From VON, Home Care, Acute Care, etc. 5
- Provincial shortage of RNs and LPNs 5
- Are located next to hospital 2
- Salary and benefits not competitive 6
- Relocating costs 2
- No full time or part time RN positions 2
- LPNs in PCW positions leave as soon as an LPN job is available
- Need standardization of wages/prerequisites
- EI requirements for courses attract unsuitable staff
- Facility is closing
- Housing 2
- Some RNs want to work limited shifts 2
- RN workload and lack of support staff
- Work/life issues
- RNs hard to recruit to LTC but once here, stay
- Workload contributing to unsafe practices
- RN retirements hard to replace

Survey on Staffing Ratios...

1. *(f) If you checked F. in question (a) above, indicate areas where additional staff are required and indicate their priority.*

	Number of Facilities Indicating Areas			
	Total	**Ans#1**	**Ans#2**	**Ans#3**
Administration	14	0	3	1
Resident Care	41	31	5	1
Program Support	23	3	14	4
Dietary	13	3	2	5
Housekeeping	6	0	1	1
Laundry	8	0	1	2
Building Operation& Maintenance	14	0	6	5
Other	2	0	0	1

Survey on Staffing Ratios...

1. (g) *If you checked G. in question (a) above, please outline your ideas regarding this issue, e.g. need for more collaboration between staff in various departments etc.*

- LPNs should do medications or increase role in same 5
- Expand roles of LPNs and PCWs
- Dementia course for housekeeping, laundry and dietary
- Need more flexible overlap of roles between departments 2
- Need better communication between nursing and dietary
- Need more LPNs to allow RNs to do more assessment and supervision
- Need adequate staff in laundry, dietary, housekeeping so RNs do not need to assist with those functions
- Need standard funding
- Less casual and part time positions
- Need multi skilled staff, eg help feed residents
- Promote holistic care, eg. PCWs provide social supports and ADL assistance
- Transfer payroll and HR to DHA with affiliation agreements
- More skills in office/accounting/administration
- More collaboration between RNs and accounting re special needs and drug costs
- LPNs act as a charge nurse with RN on call at home
- Need to expand scope of practice for RN, LPN, CCA
- With RN shortage and care acuity increasing, LPNS need to assume more responsibility
- Decentralized dining requires better interdepartmental teamwork
- Increasing acuity is placing more demands on nursing, dietary, laundry and housekeeping
- Need to look at alternate workers
- More flexibility in roles
- RNS should provide more administration and leadership functions; LPNs and PCWs should provide more care, medication distribution and assistance with ADLs
- Need more collaboration between staff

Survey on Staffing Ratios...

2. *The average current mix of RN/LPN/PCW staff for direct care in Nova Scotia nursing homes is 17%/13%/70%, respectively.*

Is your current mix of RN/LPN/PCW staff appropriate for your facility?

Facilities Reporting: **Yes:** 18 **No:** 24

If No, how would you change the mix?

RN	LPN	PCW
15	19	66
15	20	65
15	48	37
16	16	68
16	23	61
17	20	63
17	23	60
17	26	57
20	20	60
20	20	60
20	20	60
20	30	50
20	30	50
20	40	40
29	14	57

Comments: *Nine explicit comments suggesting increasing numbers of LPNs.

Survey on Staffing Ratios

3. *(a) What percentage of time do RNs and LPNs in your facility spend on direct resident care?*
RNs:____% LPNs:____%

Direct resident care includes:
- *Medication distribution*
- *Resident assessment*
- *Direct Nursing Care*
- *Assisting residents with ADLs*

Number of Facilities In Each % Category for:

% Time	RNs	LPNs
100	4	18
95	4	8
90	7	6
85	2	1
80	10	4
75	4	3
70	1	1
65	2	2
60	4	1
55	0	0
50	2	0
<50	4	0

Survey on Staffing Ratios...

3. *(b) In addition to performing resident care, do your PCWs:*

	Number of Facilities Responding
• Assist residents at meal time	44
• Assist with laundry	23
• Assist with housekeeping	18
Other:	
• Assist with recreation activities	7
• Resident transport	4
• Walking/exercise program	2
• Social supports	2
• Kitchen clean up; scrape dishes	2
• Read Mail	1
• Palliative Care	1
• Clean RN equipment	1

10. *(c)* *Do dietary, housekeeping and/or laundry staff perform duties outside their department?*

Yes: 22 **No:** 23

If yes, please specify, eg. Housekeeping staff help assist residents to the dining room for meals.

S	General	
S	Transfer residents to dining room	7
S	Help with activities	6
S	Assist with lifts for residents	2
S	Assist with feeding	
S	Get residents snacks, drinks	
S	Palliative care	
S	Respond to call buzzers	
S	Portering meals	
S	Dietary Staff	
S	Wash kitchen floors	
S	Resident transport	3
S	Activities	
S	Resident feeding	4
S	Tray delivery	
S	Housekeeping	
S	Assist PCWs in special care unit when necessary	
S	Getting residents drinks of water	3
S	Cleaning eye glasses	2
S	Getting and putting away articles form room	2
S	Transporting/portering residents	3
S	Clean tubs	
S	Assist residents with meals, eg. Cut up food, open jam, put napkins on	6
S	Some ADLs	
S	Make beds and put away laundry	
S	Laundry Staff	
S	Put resident clothes away	

Survey on Staffing Ratios...

5 (a) Is there a ratio in your facility for level II residents to PCWs by shift?

Eg.	8am - 4pm	1 to 8
	4pm - 12 am	1 to 12
	12 - 8 am	1 to 15

Yes: 21 **No:** 8

*If yes, specify:**

Shift	Range	Average
Day	from 1 to 5 to 1 to 9	1 to 6.8
Evening	from 1 to 7 to 1 to 12	1 to 10.1
Night	from 1 to 13.5 to 1 to 33	1 to 19.1

* Based on 26 homes with three 8-hour shifts.

Survey on Staffing Ratios...

4. *(b) Are you experiencing difficulty in staffing PCW positions for certain shifts or certain times of the year.*

Yes: 25 **No:** 19

If yes, please explain:

Summer vacations	14
Christmas	5
Vacations Year round	4
Weekends	6
Evenings	2
Sick relief	4
Overall Shortage	3
Nights	2
Causal Work Sporadic	2
All Shifts	1
Can't offer part time work	1
Mid Winter	1

Survey on Staffing Ratios...

(d) (c) *Is there a ratio in our facility for residents to RNs and/or LPNs by shift?*

Yes: 19 **No:** 17

If yes, please explain:

Answers varied significantly. *Examples:*

- Many facilities in the 40 to 50 bed range had 1 RN and LPN each per shift
- RN: days 1 to 30; nights 1 to 60
- 7 to 3 RNs 1 to 32.5
  7 to 3LPNS 1 to 12
- Allocations based on wings
- Allocations based on floors

Chart Survey

Number of Homes Where:

- Approved FTEs equal Utilized FTE - 2
- Utilized FTEs are less than Approved FTEs - 12 (1)
- Utilized FTEs are greater than Approved FTEs - 22 (2)

(1) 9 to 12 homes had a variance of 2.0 FTEs or less
- 13 to 22 homes had a variance of 2.0 FTEs or less

Chronic vacancies:

- Very few responses - Accuracy likely an issue

- RNs 4
  LPN 1
  PCW 1
  Physio Aide 1

- Note many charts not completed

Resident-Staff Ratios in Long Term Care

Research Report

Final Research Report

Submitted to the Resident Staff Ratio Committee on

June 25, 2001

foreward

The Resident Staff Ratio Committee is a committee of the Department of Health and CUPE with representation from local unions, employer representatives and NSAHO. This committee's purpose is to examine workable resident-staff ratios for nursing homes in Nova Scotia. Researchers from CUPE and NSAHO were requested to collect objective data as a foundation for committee deliberations. This final research report represents the research only and should not be interpreted as the report of the Resident Staff Ratio Committee.

researchers

Joseph Courtney, Canadian Union of Public Employees
Dave Kerr, Nova Scotia Association of Health Organizations
Lesley Buchanan Larrea, Nova Scotia Association of Health Organizations

table of contents

Executive summary....4

Introduction....6

Section I: The Context

The fundamental questions....7

Report methodology....9

Section II: Research Findings

Nova Scotia comparisons to Canada....9

Other available information/data....10

Survey says....14

Section III: Other Considerations

RAI 2.0....15

Influencing variables....21

Conclusion....23

Research recommendations....23

Bibliography....24

Appendix A: Cross-Canada survey....28

Appendix B: Research contributors....37

Appendix C: Tables....39

Executive Summary

In April of 1999, the Canadian Union of Public Employees (CUPE), the Nova Scotia Department of Health (DOH) and Ocean View Manor Nursing Home reached a tentative agreement that includes contract language on the formation of a Task Force to examine workable resident-staff ratios for Nursing Homes in Nova Scotia. This Task Force was formed for the purpose of making recommendations for implementation of a workable resident-staff ratio for nursing homes in Nova Scotia.

This report represents Phase One of the research project. It is the culmination of several months of research by CUPE and the Nova Scotia Association of Health Organizations (NSAHO). The research document provides:

(1) a review of the relevant literature on the development of resident/staff ratios in nursing homes;
(2) comparisons between Nova Scotia and the rest of the Canada in terms of the LTC sector;
(3) details of a cross-Canada survey on nursing home staffing standards; and
(4) next steps in the research process and a summary of key recommendations.

Our review of the literature has revealed a lack of empirical research on the development of LTC resident/staff ratios. Furthermore, the research that does exist tends to be anecdotal. Health care researchers are aware of this conundrum. Indeed, efforts are now underway in Canada and the United States to address this dilemma.

Hence, the Task Force's efforts to develop recommendations for the implementation of LTC resident-staff ratios in Nova Scotia have been frustrated by the paucity of research to date. In response to this dilemma, in Phase Two of the project the Task Force will follow research projects underway in Canada and the United States on the establishment of staffing ratios in

nursing homes. The Task Force will also conduct a survey of all seventy (70) nursing homes in Nova Scotia. The objective of the survey is to ascertain current staffing levels, and staff roles and responsibilities, among other factors.

Overall, research indicates that a single resident-staff ratio cannot be universally applied to all care settings. Several factors including the existence of support and other professional staff, and the experience and education of staff, contribute to the determination of appropriate staffing levels to support the delivery of quality client care. Further comprehensive study of the Nova Scotia environment will be appropriate to determine appropriate staffing guidelines.

Introduction

In April of 1999, the Canadian Union of Public Employees (CUPE), the Nova Scotia Department of Health (DOH) and Ocean View Manor Nursing Home reached a tentative agreement that includes contract language on the formation of a Task Force to examine workable resident-staff ratios for Nursing Homes in Nova Scotia. The verbatim text of the provision is as follows:

> *The Department of Health will form a task force before September 30, 1999 for the purpose of making recommendations for implementation of a workable resident-staff ratio for nursing homes in Nova Scotia. This study shall be completed by March 31, 2001. The task force will be comprised of representatives of CUPE and the Department of Health as well as employers and other unions as appropriate in the continuing care sector.*

Specifically, the Task Force is comprised of representatives from various labour organizations (i.e., CUPE, Nova Scotia Nurses Union (NSNU), Nova Scotia Government Employees' Union (NSGEU), Service Employees International Union (SEIU) and Canadian Auto Workers (CAW)), Long-Term Care (LTC) facilities, the Nova Scotia Association of Health Organizations (NSAHO) and the Nova Scotia Department of Health. The main objective of the Task Force is to develop recommendations for workable staffing ratios for nursing homes and homes for the aged in Nova Scotia. Initially, the report of the Task Force, including recommendations, was to be submitted to the Deputy Minister of Health by March 31, 2001, as outlined above; however, CUPE is taking the position that this deadline is flexible.

Researchers from the National Office of CUPE and the NSAHO collaborated on this research document. In our view, this project is very much a work in progress given the complicated nature of the research topic and the relative lack of empirical research that addresses the formulation of LTC resident-staff ratios. Hence, the research presented in this paper will not be conclusive; rather, it will give the reader a sense of the "lay of the land" with respect to the establishment of resident-staff ratios in the LTC sector.

The work of the Task Force commenced at the same time the DOH was piloting a care-planning tool in four of the province's nursing homes. This care-planning tool is known as the *Resident Assessment Instrument* or *RAI 2.0*. The RAI 2.0 was developed by InterRAI, which is comprised of a global team of researchers and clinicians. The instrument is "designed for use in long term care facilities where skilled nursing services are employed (e.g., nursing homes, chronic care hospitals)" (Were, March 2001: 1). Use of the RAI 2.0 entails the collection of data from patients and caregivers to determine residents' level of functioning and individual care needs. This information is then used to create care plans for residents. The data generated allows for the categorization of residents into *Resource Utilization Groupings* (*RUGs*), which is a case mix classification system:

> "Case mix provides funders with a system to equitably distribute limited resources. Facilities that care for clients with heavy care needs are provided more resources than facilities that care for clients with lighter needs. Case mix systems are not financing systems. The case mix system provides information for the equitable distribution of resources, it does not specify the amount of funding needed in the sector. By way of analogy, case mix systems describe how the pie should be divided not how large the pie should be" (Were, March 2001: 3).

It is important to distinguish that the RAI 2.0 does not determine or measure "appropriate" staffing levels directly. However, it may be possible to determine staffing levels through the development or use of a bridging tool that would link a particular case mix classification (RUGs score) to the staff required to care for an individual within that classification.

A number of jurisdictions have and are giving serious consideration to implementation of the RAI 2.0. For example, in Ontario the RAI 2.0 has been mandated for use in Chronic Care facilities since 1996 and will be tied to funding in the Chronic Care sector in 2001. The instrument has been mandated for use in Saskatchewan since April 2001 and is being recommended for use in the province of Alberta. The RAI 2.0 has already been piloted in Manitoba, and in British Columbia it will be used in seven regions of the province in 2001. Officials in the provinces of New Brunswick and Newfoundland and Labrador are in the process of examining the instrument's utility. The Canadian Centre for Policy Alternatives has endorsed the use of the RAI 2.0 in Canada. The instrument is federally

legislated in the United States and Iceland and is in use in a total of seventeen countries. A more detailed examination of the RAI 2.0 is provided Section III of the report.

This report is organized into sections as follows. Section one provides details of key research questions and the methodology employed in the project. Section two outlines data on Nova Scotia comparisons to Canada with respect to RN and LPN employment patterns. Details will also be provided on the results of a new US study and report to Congress that establishes minimum nurse staffing levels for long-term care facilities. Section three discusses other considerations in the quest to develop a resident-staff ratio. This report concludes with recommendations and next steps in the research process.

SECTION I: The Context

the fundamental questions

The research project was initially guided by the following key questions:

1. What are the current resident staff ratios for long term care in Nova Scotia and across the country?
2. How does Nova Scotia compare with respect to other provinces?
3. Are there standards/legislation that determine ratios in other provincial jurisdictions? If yes, then how were the ratios established? What are the criteria? What are the various elements that determine ratio levels?
4. What information/data can be derived from other jurisdictions?

A questionnaire titled "Canadian Review: Nursing Home Direct Care Staffing Standards" (see Appendix A) was developed by CUPE and NSAHO researchers and distributed to government officials across Canada. The following is a sample of the survey questions:

- Does your province use various levels of care when classifying long-term care (LTC) residents?
- What are your current provincial guidelines for provision of nursing administration in LTC? For example: 1 FTE / 60 beds
- Does your province currently require 24 hours RN coverage in nursing homes?
- Does legislation in your province allow LPNs to dispense medications?
- Does your provincial legislation for LTC mandate the provision of non-direct care services in nursing homes? For example: Nursing, OT/Physiotherapy, Recreation Therapy, etc. If so, please provide the FTE/Resident ratio specified by your legislation.
- Have universal LTC resident-staff ratios been proposed or implemented in your province?
- Are there standards or legislative frameworks governing LTC resident-staff ratios in your province?

The comprehensive nature of the questionnaire underscores the complexity of developing a potential formula for workable resident-staff ratios in LTC facilities in Nova Scotia.

Research materials gathered to date have come from a variety of sources including Internet databases and web sites, and telephone conversations with and email requests to stakeholders and research experts in health care in Canada. Materials have been supplied by a number of individuals and organizations (see Appendix B)

Report methodology

There exists many interpretations of what research is and what it is not, just as there exists the belief that "good" research is by definition objective and is therefore divorced from the opinions, beliefs and value judgments of those involved in the production of knowledge. There are two basic types of research: primary and secondary. Primary research takes as its object the production of new knowledge through, for example, surveys and other types of research designs (e.g., participant observation and semi-structured interviews). Alternatively, secondary research involves the systematic collection and analysis of existing sources of information such as that contained in literature reviews, academic journals, newspapers, magazines, books, surveys, data bases, etc.

This project employs the techniques of secondary research. It is important to realize that the research enterprise is inherently biased. The research process can never be absolutely objective because researchers, as human beings, are not objective. Researchers approach their work with a particular agenda, assumptions and biases. This is why researchers scrutinize each other's work. "Perfect research", if it existed, would require no such treatment.

With respect to this report, there is a scarcity of empirical research in the area of LTC resident-staff ratios in Canada; for example, there exists no national database of LPN information. Existing evidence is descriptive and anecdotal as opposed to empirical. Much more rigorous research is required in this area. Indeed, health care researchers are aware of this conundrum. There is growing interest by researchers to tackle this dilemma with a view to filling this gap in the health care literature.

SECTION II: Research Findings

Nova Scotia comparisons to Canada

Trends in the data *(see tables 1-6 in Appendix C)*

Tables one through six provide a historical review of RN and LPN volumes and employment patterns between 1982 and 1998. The following trends are worth noting:

- While showing a marked increase during the 1980s, the number of RNs in Nova Scotia has steadily declined between 1992 and 1998. By contrast, other Atlantic provinces have shown an increase in RN volumes over this period.

- Only New Brunswick and Newfoundland showed an increase in LPN staffing between 1992 and 1997. Nova Scotia experienced a 3.0 percent decline; however, this rate was among the lowest in Canada.

- The RN to population ratio in Nova Scotia has fallen to 112:1 in 1998 from 101:1 in 1992. All other provinces except New Brunswick and Newfoundland have shown similar declines.

- Between 1987 and 1997 all provinces except New Brunswick, Prince Edward Island and Newfoundland experienced declines in their LPN to population ratios.

- In all of Canada since 1985, nearly 22,000 RNs have begun working in nursing home or community care settings, while over 3,000 have left the acute care environment.

In 1997, Nova Scotia ranked 7th in its RN to LPN ratio at 2.7:1 – below the Canadian average of 3.0:1.

Other available information/data

Despite the current dearth of solid research on resident-staff ratios in Canada, efforts are underway to remedy this dilemma.

Advisory Committee on Health Human Resources

The Advisory Committee on Health Human Resources (ACHHR), *Nursing Strategy for Canada,* (October 2000), points to the need for more empirical research on RNs, LPNs and Registered Psychiatric Nurses (RPNs). To this end, the report calls on the federal, provincial and territorial governments to establish a Canadian Nursing Advisory Committee (CNAC). One of the main objectives of the CNAC will be to improve nurses' quality of work life through improved nurse/patient ratios to address workload concerns; reduction in non-nursing duties; and reduced "casualization" (ACHHR, 2000: ES 3). Specifically, the ACHHR has recommended the following strategy as a means to improving nurses' quality of work life with a view to enhancing nursing retention:

- Address appropriate nurse/patient ratios;
- Utilize an efficient and appropriate nurse mix;
- Reduce non-nursing duties;
- Prevent workplace injuries and illness;
- Reduce casualization and increase permanent positions;
- Implement improved flexibility/family-friendly scheduling options and customized work arrangements;
- Reintroduce/enhance clinical leadership at the bed/ward/unit level; and
- Ensure appropriate opportunities for continuing education and practice development (ACHHR, 2000: 31-32.).

Human Resources Development Canada

Human Resources Development Canada (HRDC) is currently examining human resource planning in nursing. The first phase of the report consists of a literature review by Dussault et al., 1999. The second phase of this project consists of a national nursing sector study, which is now underway.

United States of America

American empirical research exists that establishes a direct link between low nurse staffing levels (e.g., RN's, LPNs and Nurse Aides/Nursing Assistants) and inadequate and even harmful resident outcomes. The U.S. Health Care Financing Administration's (HCFA) recent report to the U.S. Congress is a prime example. The 800 page study was mandated by law and published in the summer of 2000. The report examines "the analytic justification for establishing minimum nurse staffing ratios in nursing homes" (HCFA, 2000: ES 1). Essentially, the research "establishes a clear and irrefutable link between low staffing levels and poor health outcomes for residents including avoidable hospitalizations, a high incidence of pressure sores, and weight loss" (HEU, 2001: 1; see also HCFA, 2000, ES 3). The authors of the report also determined that adequate staffing levels are:

- important for the provision of adequate care levels necessary to avoid serious harm to residents
- important for both improving the health outcomes and quality of life for residents; and
- cost effective in human and financial terms, especially by reducing costs associated with certain acute care expenditures and by lowering the rate of staff injuries (HEU, 2001: 1).

A complex research methodology was employed in the study and consisted of the following elements:

- Consultations with experts in long-term care, nursing economists, stakeholders, consumer advocates, nursing home industry officials and labour organizations with a view to reviewing the literature on staffing;

- Empirical determination employing multivariate analysis[1] of the relationship between staffing and quality of care. Outcomes examined included avoidable hospitalizations, improvements in the activities of daily living (ADL's), incidence of pressure sores, weight loss, and resident cleanliness and grooming.
- Time-motion studies were employed to determine the amount of time required to perform certain tasks (e.g., changing wet clothing, toileting, exercise, feeding, morning care, etc.). A simulation analysis was adopted using six categories of residents with different functional limitations and care needs.

Major Findings of the HCFA Report:

- The multivariate analysis and time motion studies indicate a strong relationship between staffing and quality of care.
- Minimum staffing levels may reduce the likelihood of quality of care problems; however, higher "preferred minimum" levels exist above which quality was improved across the board.
- The minimum staffing level associated with reducing the likelihood of quality problems is approximately 2.0 hours per resident day for nurse aides, regardless of facility case mix.
- The preferred minimum staffing levels for RN and total licensed staff in which quality was improved across the board are .45 and 1.0 hours per resident day, respectively.
- Using a time-motion derived standard, the minimal nurse aide time necessary to provide optimal care in delivering five specific daily care processes is 2.9 hours per resident day. The five daily care services include repositioning and changing wet clothes, repositioning and toileting, exercise encouragement/assistance, feeding assistance, and ADL independence enhancement (morning care).

[1] Multivariate analysis allows one to determine the extent to which variables are interacting.

Figure 1

Report to the US Congress: HCFA Study, July 2000
Direct Care Hours Per Resident Per 24 Hour Day

	Minimum Level of Care Required to Avoid Serious Harm	Minimum Level of Care Required to Meet Current Requirements and Improve Outcomes
Care Aides	2	2.9
RN / LPN	0.45	1
Total	**2.45**	**3.9**

Source: Adapted from Hospital Employees' Union (HEU), British Columbia (February 2001). *Backgrounder: Staffing in BC's Long-Term Care Facilities Fall below Minimum Levels set Out in US Congress Study.* (p. 6).

Canadian Reaction to HCFA Report:

Upon reviewing the Report to Congress study, researchers with the Hospital Employees' Union (HEU) of British Columbia concluded that current staffing levels in BC's long term care facilities jeopardizes residents' health and safety. The unions that represent 60 thousand health services and support workers in BC "are proposing contract language that would establish staffing ratios that are safe for residents and staff. Under the unions' proposal, a joint union/employer committee would set staffing ratios for long-term, multi-level and extended care facilities for full implementation within one year, followed by staffing ratios for home support workers in the second year" (HEU, February 2001: 7). The proposal will be on the table during this year's round of collective bargaining.

Survey says...

Seven of nine provinces contacted responded to the cross Canada survey on nursing home staffing standards developed by researchers with NSAHO and CUPE (see Appendix A). The survey provided the following points of comparison between Nova Scotia and the rest of Canada (see tables 7, 8a and 8b in Appendix C):

- Nova Scotia does not have formal care levels which equated to the Level I and IV as described in the survey.
- Care provided at Level II averaged about 1.8 hours/resident. Nova Scotia: approximately 1-1.5 hours.
- Care provided at Level III averaged about 2.6 hours/resident. Nova Scotia: approximately 2-2.5 hours.
- Four of seven provinces have formalized guidelines for nursing administration, whereas, Nova Scotia does not.
- Nova Scotia has a 24 hours RN coverage requirements as does most all other provinces.
- LPNs in Nova Scotia are permitted to dispense medications as is the case with most other provinces.
- Only Ontario and Newfoundland have the provision of other health service providers mandated in LTC legislation.
- Only New Brunswick claims to have universally implemented resident-staff ratio guidelines.
- All provinces except Newfoundland identified "recruiting" and "retention" among the top three issues facing LTC.

SECTION III: Other Considerations

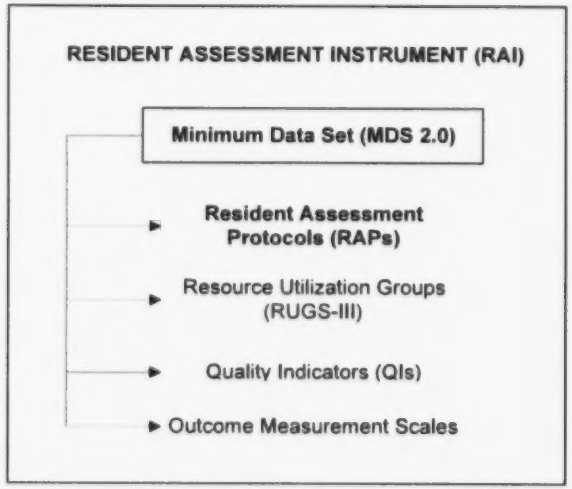
RAI 2.0

(This section has been contributed by Wade Were, Senior Policy Analyst, Nova Scotia Department of Health.)

Minimum Data Set 2.0

The RAI 2.0 was designed to be first and foremost a care planning tool. Central to the RAI 2.0 is the Minimum Data Set (MDS 2.0) which is a standardized data collection form used to collect the minimum amount of information needed to plan the resident's care. A Registered Nurse coordinates the completion of the form drawing information from the residents records, the resident and/or family, and through communication with other members of the residents care team such as the physician, pharmacist, rehabilitation therapists, activity coordinators, dietary staff, LPNs, and Personal Care Workers. The MDS 2.0 provides a database of coded information that indicates the resident's level of function or care needs on each assessment item.

In addition to the development of individualized care plans, the MDS 2.0 data supports other applications including case-mix classification, quality indicator reporting, and outcome measurement.



In Canada, the Canadian Institute for Health Information has endorsed the use of the MDS 2.0 data set as the national standard for long-term care settings.

Ontario has mandated the use of the MDS 2.0 since 1996 for its chronic care hospitals. Since 1997 Saskatchewan has been phasing in the implementation of the MDS 2.0 and requires all Health Districts to begin reporting commencing April 1, 2001. Provincial Governments in Manitoba, British Columbia, Alberta, and Nova Scotia have completed pilot testing of the MDS 2.0 or are in the process of conducting tests.

Resident Assessment Protocols

Upon feeding the MDS 2.0 assessment data into a software program, certain resident characteristics will trigger the need for further assessment and care planning guided by the Resident Assessment Protocols (RAPs). Using one or more of these practise guidelines, the caregivers put together an action plan to care for the resident. The RAPs do not replace the clinician's judgement.

There are 18 RAPs, which have been created by clinical experts, and can be used for both individual care and facility wide programming activities. They cover important areas such as pressure ulcers, falls, communication, vision, cognition, delirium, incontinence, behaviour, etc.

Quality Improvement

Researchers have developed and validated 24 Quality Indicators (QI) based on the MDS data. They indicate the presence or absence of potentially poor care practices or outcomes. In addition to being useful information for facility quality improvement activities, comparative QI information can be useful to regulators for such purposes as licensing, benchmarking, and the identification of best practices.

MDS 2.0 Quality Indicators

Accidents - fractures, falls
Behavioural & Emotional Patters - behaviour affecting others, symptoms of depression, depression with no anti-depressant therapy
Clinical Management - nine or more medications
Cognitive Patterns - cognitive impairment
Elimination & Continence -bladder or bowel incontinence, incontinence without a toileting plan, indwelling catheters, fecal impaction
Infection Control - urinary tract infections
Nutrition & Eating - weight loss; tube feeding; dehydration
Physical Functioning - bedfast residents; late loss ADLs decline; rang of motion decline (no training)
Psychotropic Drug Use - anti-psychotic and no related conditions; anti-anxiety/hypnotic use, hypnotic use ore than 2X weekly;
Skin Care - stage 1-4 pressure ulcers
Quality of Life – daily physical restraints, little or no physical activity

Outcome Measurement

Several Outcome Measurement Scales have also been developed based on the MDS data. These scales have been validated against gold standards in the industry. They facilitate evaluation of interventions and provide evidence for best practice.

Case Mix Classification

Case mix systems use combinations of resident characteristics (often available within assessment systems) to identify groups of residents with homogeneous resource requirements. Using the MDS data one can categorize residents into Resource Utilization Groups (RUG-III). The RUG-III algorithm uses over 100 variables from the MDS 2.0 to produce 44 classification levels organized in 7 hierarchical domains. For each of the 44 classification levels, a case mix index has been calculated through extensive time studies carried out in the USA and found to be valid and reliable through international studies including Canada.

RUG-III Classification System

Domain	# of Levels in Domain	Case Mix Index
Rehabilitation	12	2.28
Extensive Services	3	1.97
Special Care	3	1.36
Clinically Complex	8	0.98
Impaired Cognition	4	0.62
Behaviour Problems	4	0.54
Reduced Physical Function	10	0.73
	Total = 44	

A case mix index represents the mean resources used by residents in that group relative to other groups. The time study data coupled with average salary information from nursing, rehabilitation, and auxiliary staff was used to develop the case mix indices.

Case mix provides funders with a system to equitably distribute limited resources. Facilities that care for clients with heavy care needs are provided more resources than facilities that care for clients with lighter needs.

Case mix systems are not financing systems. The case mix system provides information for the equitable distribution of resources, it does not specify the amount of funding needed in the sector. By way of analogy, case mix systems describe how the pie should be divided not how large the pie should be. *[NSAHO researchers wish to note that the MDS 2.0 is not a workload measurement tool, and does not automatically provide staffing information.]*

It has been consistently found across countries that while the absolute amount of care provided varies widely, the relative resource needs of different groups of residents tend to be stable across cultures even when the resources available through the financing system vary substantially.

It should be noted that the RUG-III (case mix) classification system is fundamentally different from the classification system used in Nova Scotia and many other provinces where classification is used primarily as a tool for making placement decisions rather than resource allocation decisions.

Most provinces in Canada, including NS, classify clients by assessing them prior to placement. The assessor matches the client to one of few classification levels based on their largely subjective interpretation of the assessment data.

The Use of RUG-III in North America

The US Government uses the RUG-III in their prospective payment system for Medicare patients in every state as of July 1, 1998. About 11 US state governments had begum to use a RUG III system or its derivative to reimburse facilities for Medicaid patients prior to 1998. Other US states are expected to follow.

Ontario is scheduled to begin using RUG-III for resource allocation commencing April 1, 2001 in the chronic care hospital sector. Saskatchewan Health is considering using the RUG-III data in its Health District funding methodology.

In Canada, only one other case-mix classification system exists for long-term care, i.e. the Alberta Resident Classification System. ARCS is used in the nursing home and chronic care hospital sector of Alberta as well as in the nursing home sector of Ontario. However, given Alberta appears ready to abandon the ARCS in favour of a new RUG-III based classification system, the future use of ARCS is in serious doubt.

Select Strengths of MDS 2.0 & RUG-III

- Scientifically tested to be valid & reliable.
- InterRAI's continuous development of tools.
- Refined breakdown of levels based on resource intensity.
- Can be used for case mix funding.
- Perceived to be less susceptible to manipulation by assessors.
- Involves direct assessment of residents so not dependent soley on the quality of charting.
- Built in incentives to provide rehabilitation.
- Primarily assesses client needs, thus, less dependent on facility practices to determine need.
- Able to explain the smaller subgroups of patients who are very resource intensive.
- Associated system for care planning and quality improvement including outcome measurement.
- Can be fully automated.

Alberta is in the final stages of developing and testing a placement tool called the Continuing Care Needs Determination Instrument. The CCNDI includes the minimum amount of information needed to make placement decisions but it also incorporates a common case mix classification system for all continuing care clients. It builds on the RUG-III by incorporating data on IADL (instrumental activities of daily living) and available informal supports. The result is a system of 56 classification levels, and time studies have been conducted to develop associated resource intensity weights for each level. If approved by Alberta Health, all "continuing care" clients moving through its "single point of entry" system will be classified using this Continuing Care Classification System. The common classification data could be used for planning and resource allocation purposes.

In Alberta's proposed system, it is recommended that all nursing home/chronic care facilities use the RAI 2.0. It is also likely that Alberta will adopt the RAI-HC for use on home care clients.

influencing variables

Several authors and researchers have argued that the quest for a single, adequate calculation regarding a safe resident to staff ratio is illusive at best. Such calculations disregard many other factors that influence the availability and numbers of nursing staff required. Realistically, quality patient care results from a combination of many inputs, with nursing care being simply one component. An assessment of the adequacy of nursing staff must be contextual and not viewed independently of other important variables many of which are presented on the following page.

Factor	Potential Impact
Existence of pool of casual nurses	Ratios are only useful when there are adequate numbers of staff to meet demand. The ability to replace vacation or sick leave shifts with casual nurses will have a dramatic impact on the ability to support a resident-staff ratio.
Acuity of Care	As the population ages and the number of elderly persons with multiple chronic conditions increases, the demand for more complex nursing home care will escalate. More complex care will necessitate using nurses with enhanced skill levels. Such a trend will influence a resident-staff ratio.
Education/Training/Experience	Mature, well trained staff function more efficiently and effectively than new staff. Homes with experienced staff may function very well under differing resident-staff ratios relative to other homes with less experienced staff. Homes that emphasize education and training may also have less difficulty supporting a pre-established ratio because of better staff morale and fewer workplace injuries.
Level of non-direct care providers	More non-direct care providers such as housekeeping or dietary staff reduces this type of work for the direct care providers, freeing up more time for contact with the resident.
Clarity of roles and responsibilities	RNs show a strong affinity for direct patient care yet often perform very few of these duties due to their accountability for providing planning and coordination of the services offered by others. Clear delineation of roles and responsibilities among direct care providers will help to avoid 'turf' battles and may influence the resident-staff ratio.
Shift scheduling	Utilizing advanced scheduling techniques such as self-scheduling may improve and maintain staff morale, thereby, improving the chances that a resident-staff ratio can be adequately supported.
Physical Layout	A poorly designed structure may cause delays in addressing nursing workload. Storage units located in inconvenient places, or an inability to move efficiently between floors may influence the number of staff required to care for residents.

Conclusion

Research indicates that the issues surrounding resident-staff ratios are plentiful in number, difficult to answer, and almost always impossible to provide a "one-size-fits-all" solution. Throughout the report and literature searches, interviews, and numerous meetings, no single recommendation has provided a simple solution. Instead it is suggested that the most appropriate solution to resident-staff ratios lies in the development of guidelines, rather than specific numbers. Guidelines that consider staff complement, education, experience, and the acuity of residents (among other factors) will determine the most appropriate staffing levels in order to ensure the delivery of quality health care. It will be up to policy makers and the provincial government to determine the extent to which these considerations will be funded.

Research Recommendations

- This document is both time and issue sensitive and should be interpreted as such. As this issue continues to be researched and studied across Canada, information presented in this document will become outdated.
- This is a national issue – not one that merely affects Nova Scotia, or even Atlantic Canada. In the formulation of this research document, a number of contacts have been established with key stakeholders in other provinces. Contact should be maintained with these individuals in order to keep abreast of developing issues both provincially and on a national level.
- Research indicates that a single resident-staff ratio cannot be universally applied to all care settings. Several factors including the existence of support and other professional staff, and the experience and education of staff, contribute to the determination of appropriate staffing levels to support the delivery of quality client care. Further comprehensive study of the Nova Scotia environment will be appropriate to determine appropriate staffing guidelines.

Bibliography

Advisory Committee on Health Human Resources (ACHHR) (2000). *The Nursing Strategy for Canada.*

Armstrong, Pat, et al., (1997). *The Consequences of Government Policy changes in Long-Term Care in Ontario.* Prepared for the Canadian Union of Public Employees (CUPE) and the Service Employees International Union (SEIU).

Banaszak-Holl, J. & Hines, M.A. (1996). *Factors Associated with Nursing Home Staff Turnover.* The Gerontologist, 36(4), 512-517.

British Columbia Association of Private Care. *Staffing Guidelines.* Internet resource: www.bcpricare.com/policy_discussion_papers.htm

Canadian Institute for Health Information (2000). *Health Personnel in Canada, 1988 to 1997.*

Canadian Union of Public Employees (CUPE) (2000). *For the Love of it: Long Term Care Issues in Manitoba.*

Canadian Union of Public Employees (CUPE), New Brunswick (1998). *Presentation to the Health Services Review Committee.*

Dellefield, M.E. (2000). *The Relationship Between Nurse Staffing in Nursing Homes and Quality Indicators: A literature review.* Journal of Gerontological Nursing, June, 14-28.

Dussault, Gilles et al., (1999). *The Nursing Labour Market in Canada: Review of the Literature.* Prepared for Human Resources Development Canada (HRDC).

Elliot, R. (1991). *Assistive Technology for the Frail Elderly: An introduction and overview.* Prepared by the Office of Disability, Aging and Long-Term Care Policy within the U.S. Department of Health and Human Services.

Harrington, C., Kovner, C., Mezey, M., Kayser-Jones, J, Burger, S., Johler, M., Burke, R. & Zimmerman, D. (2000). *Experts Recommend Minimum Nurse Staffing Standards for Nursing Facilities in the United States.* The Gerontologist, 40(1), 5-16.

Health Care Financing Administration (HCFA) (2000). *Report to Congress: Appropriateness of Minimum Nurse Staffing ratios in Nursing Homes.*

Hospital Employees' Union (HEU), Health Employers Association of British Columbia (HEABC), British Columbia Government Employees' Union (BCGEU), and BC Ministry of Health (2000). *Licensed Practical Nurses and Care Aides in BC: Research on Roles and Utilization.*

Johnson-Pawlson, J., and Infeld, D.L. (1996). *Nursing Staffing and Quality of Care in Nursing Facilities.* Journal of Gerontological Nursing, August, 36-45.

Kay, Kelly (1999). *Facing Forward: Current and Future Health Care Trends and Issues and the Implications for Canada's Practical Nurses.* Prepared for the Canadian Practical Nurses Association (CPNA).

Kovner, C, Mezey, M & Harrington, C. (2000). *Research Priorities for Staffing, Case Mix and Quality of Care in US Nursing Homes.* Journal of Nursing Scholarship, 32:1, 77-80.

Manitoba Nurses' Union (2000). *Report on Long Term Care.*

McGillis Hall, Linda (1997). *A Critical Review and Analysis of the Literature on Staff Mix Models: A Report for the College of Nurses of Ontario.*

National Citizens' Coalition for Nursing Home Reform (1999). *Federal & State Minimum Staffing Requirements.*

Nova Scotia Department of Health (1997). *Presentation on Long Term Care Staffing Issues to Continuing Care Forum.*

Nova Scotia Department of Health (1995). *Community Continuing Care: A new horizon.* Submitted to the Deputy Minister of Health of Nova Scotia.

Nurses' Association of New Brunswick (NANB) and New Brunswick Nurses' Union (NBNU) (1998). *Maintaining a Professional Practice Environment in New Brunswick Nursing Homes: Exploration of Nursing Staffing Ratios.*

Nursing Resources Advisory Committee (1993). *Nursing Service and Resource Management Plan.* Prepared for the Department of Health and Community Services, Government of New Brunswick.

Practical Nurses Licensing Board of Nova Scotia. *Licensed Practical Nurses Proposed Scope of Practice – draft.*

Practical Nurses Licensing Board of Nova Scotia. *Proposed Role of the Licensed Practical Nurse – draft.*

Province of Nova Scotia (1996). *Licensed Practical Nurses Act. Chapter 310 of the Revised Statutes.*

Registered Nurses' Association of Nova Scotia (1998). *Report and Recommendations of the Committee on Unlicensed Assistive Personnel.*

Registry of Regulations of Halifax, Nova Scotia (1998). *Licensed Practical Nurses Regularions made under Secion 18 of the Licensed Practical Nurses Act.*

Stunkel, E.L. (1997). *The Rural Long-Term Care Labour Force: an overview.* Kansas State University Center on Aging with funding from The National Resource and Policy Centre on Rural Long-Term Care and The Administration on Aging grant.

Wells, Andrew and Regina Coady (2000). *Interim Registered Nurse Supply Report.* Prepared for Minister of Health and Community Services, Government of Newfoundland and Labrador.

Wells, Andrew and Regina Coady (2000). *Licensed Practical Nurse Supply Report.* Prepared for Minister of Health and Community Services, Government of Newfoundland and Labrador.

Were, Wade (March 2001). "What is the RAI 2.0?" Long Term Care Division, Nova Scotia Department of Health.

Wunderlich, G.S., Sloan, F.A. & Davis, C.K. (1996). *Nursing staff in hospitals and nursing homes: is it adequate?* Prepared for the Committee on the Adequacy of Nurse Staffing in Hospitals and Nursing Homes. National Academy Press, USA.

appendix A

Table 1
Definitions of Categories from the Reconciliation of Facilities
Levels and Types of Long Term Care, for Purposes of Provincial Comparison

Category of Care	Study Definitions
LEVEL I	$usually not given a label by provinces; refers to situations where Apersonal care@ is not provided. $residents are ambulatory and highly functioning, requiring mostly room, board and lodging services
LEVEL II	$residents are relatively independent, with some functional or mental impairment $residents require limited or minimal supervision or assistance with activities of daily living (ADLs) or behaviours of daily living (BDLs) $residents require less than 1.5 to 2 hours of personal care per day
LEVEL III	$residents have more extensive functional or mental impairments $require more extensive assistance with ADLs and BDLs $require between 1.5 and 3.5 hours of nursing and personal care per day
LEVEL IV	$residents have severe functional or behavioural disability $require skilled management and nursing care: more than 3 to 3.5 hours of skilled nursing and personal care per day

Canadian Review
Nursing Home Direct Care Staffing Standards

1997-2001 Update Questionnaire

Province: _____

Your Name: _____

Organization: _____

Position: _____

Phone: _____

Fax: _____

E-Mail: _____

Question 1:

a) Does your province use various levels of care when classifying long-term care (LTC) residents?

Yes No

b) If so, please identify the levels used (e.g. Levels 1-5; Levels A-G)

_____

_____

_____

Question 2:

If possible, please try to align your levels of care with the broadly defined Levels I through IV in Table 1 (see attached). This is an attempt to ensure consistent definitions across provinces. Assuming your levels of care can be roughly matched against the four broad categories, please provide the following information.

Level I

a) Number of hours of direct care per patient: _____

b) Are these hours: worked paid
(excluding lunches, breaks, etc.) (including lunches, breaks, etc.)

c) Expressed as a percent, what is your RN:LPN:PCW ratio
For example 10% RN: 20% LPN: 70% PCW

_____ % RN: _____ % LPN: _____ % PCW

Level II

a) Number of hours of direct care per patient: _____

b) Are these hours: worked paid
(excluding lunches, breaks, etc.) (including lunches, breaks, etc.)

c) Expressed as a percent, what is your RN:LPN:PCW ratio
For example 10% RN: 20% LPN: 70% PCW

_____ % RN: _____ % LPN: _____ % PCW

Level III

a) Number of hours of direct care per patient: _____

b) Are these hours: worked paid
(excluding lunches, breaks, etc.) (including lunches, breaks, etc.)

c) Expressed as a percent, what is your RN:LPN:PCW ratio
For example 10% RN: 20% LPN: 70% PCW

_____ % RN: _____ % LPN: _____ % PCW

Level IV a) Number of hours of direct care per patient: _____

b) Are these hours: worked paid
(excluding lunches, breaks, etc.) (including lunches, breaks, etc.)

c) Expressed as a percent, what is your RN:LPN:PCW ratio
For example 10% RN: 20% LPN: 70% PCW

_____ % RN: _____ % LPN: _____ % PCW

Note: Do these ratios include nursing staff who work in non-direct care positions? For example: administration, quality assurance, education, etc.

Yes No

Comments:

_____

_____

Question 3:

What are your current provincial guidelines for provision of **nursing administration** in LTC? For example: 1 FTE / 60 beds
Guideline is: _____

Comments: _____

Question 4:

Does your province currently require 24 hours RN coverage in nursing homes?

Yes No

Comments:

_____

Question 5:

a) Does legislation in your province allow LPNs to dispense medications?

Yes No

b) If so, in your estimate what percentage of nursing homes in your province are using LPNs in this way?
_____ Percent

Comments:

_____

_____

Question 6:

a) Does your provincial legislation for LTC mandate the provision of non-direct care services in nursing homes? For example: Nursing, OT/Physiotherapy, Recreation Therapy, etc.

Yes No

b) If so, please provide the FTE/Resident ratio specified by your legislation.

Physiotherapy _____ FTE(s) per _____ Resident(s)
Occupational Therapy _____ FTE(s) per _____ Resident(s)
Recreation Therapy _____ FTE(s) per _____ Resident(s)

Social Work _____ FTE(s) per _____ Resident(s)
Clergy _____ FTE(s) per _____ Resident(s)
Other _____ _____ FTE(s) per _____ Resident(s)
Other _____ _____ FTE(s) per _____ Resident(s)

Comments:

_____

_____

Question 7:

a) Have universal LTC resident-staff ratios been proposed or implemented in your province?

Yes No

Proposed Implemented

b) If yes, please provide information on the proposed or implemented ratios.

Comments:

_____

Question 8:

a) Are there standards or legislative frameworks governing LTC resident-staff ratios in your province?

Yes No

b) If yes, please provide information on the legislated ratios.

Comments:

_____

_____

Question 9:

a) If you answered "Yes" to question 7 or 8, please provide information on how these ratios were derived (i.e. What criteria/process was used in determining the LTC resident-staff ratios)?

_____

b) If you answered "No" to question 7 or 8, are efforts underway to establish a LTC resident-staff ratio in your province?

Yes No

Comments:

_____

_____

Question 10:

Generally, what are the main issues facing LTC in your province. If possible, please rank your answers - 1(most important) through 5 (least important).

_____ ability to recruit _____ ability to retain staff _____ access to equipment

_____ scheduling _____ others (please specify)

Comments:

_____

_____

Question 11:

Can you provide any empirical data/literature that addresses the issues of resident-staff ratios in LTC in Canada?

Yes No

Comments: _____

_____

THANK YOU FOR RESPONDING TO OUR SURVEY.

YOUR TIME AND EFFORT IS GREATLY APPRECIATED.

appendix B

research contributors

- CUPE Long-Term Care Coordinators from across Canada
- CUPE Research, National and Regional Offices
- Hospital Employees' Union (HEU), British Columbia
- Manitoba Nurses' Union
- Canadian Institute for Health Information (CIHI)
- Human Resources Development Canada (HRDC)
- Nova Scotia Department of Health
- Registered Nurses' Association of Nova Scotia
- Ministry of Health and Community Services, Government of New Brunswick
- RN/LPN Subcommittee, Government of Newfoundland and Labrador
- College of Nurses of Ontario
- Ms. Kelly Kay, Registered Practical Nurse, Canadian Practical Nurses Association (CPNA)
- CPNA Member and Non-Member Associations
- Provincial LPN Registrars and Associations
- Dr. Linda McGillis-Hall, Faculty of Nursing, University of Toronto
- Ms. Linda O'Brien-Pallas, Coordinator, Nursing Effectiveness Utilization and Outcomes Research Unit, University of Toronto
- Provincial Department of Health representatives (see table 8b)

appendix C

list of tables

Table 1: Number of RNs Employed in Nursing, Canada, By Province 1982-1998. Source: Dussault, Gilles et al., (1999). *The Nursing Labour Market in Canada: Review of the Literature*. Prepared for Human Resources Development Canada (HRDC).

Table 2: Population Per RNs Employed in Nursing in Canada, Canada, by Province of Employment, 1982-1998. Source: Dussault, Gilles et al., (1999). *The Nursing Labour Market in Canada: Review of the Literature*. Prepared for Human Resources Development Canada (HRDC).

Table 3: Place of Employment of RNs Employed in Nursing, Canada, 1985-1998. Source: Dussault, Gilles et al., (1999). *The Nursing Labour Market in Canada: Review of the Literature*. Prepared for Human Resources Development Canada (HRDC).

Table 4: Number of LPNs, Canada, by Province of Licensure, 1982-1998. Source: Dussault, Gilles et al., (1999). *The Nursing Labour Market in Canada: Review of the Literature*. Prepared for Human Resources Development Canada (HRDC).

Table 5: Population per LPNs, Canada, by Province of Licensure, 1982-1998. Source: Dussault, Gilles et al., (1999). *The Nursing Labour Market in Canada: Review of the Literature*. Prepared for Human Resources Development Canada (HRDC).

Table 6: RN and LPN Employment and Ratios, Canada, by Province, 1997

Table 7: Ba/Bb: Canadian Review of Nursing Home Direct Care Staffing Standards - Feb 2001

Table 1: Number of Registered Nurses Employed in Nursing, Canada, by Province, 1982-1998

Table 1: Number of Registered Nurses Employed in Nursing(a), Canada(b), by Province, 1982-1998(c)

Province	1982	1987	1992	1997	1998	Tx 1982-1987 (%)	Tx 1987-1992 (%)	Tx 1992-1997 (%)	Tx 1998-1997 (%)
Newfoundland	4111	4287	4953	5210	5340	4.3	15.5	5.2	2.5
Prince Edward Island	780	1079	1246	1281	1277	38.3	15.5	2.8	-0.3
Nova Scotia	6952	8343	9128	8587	8525	20.0	9.4	-5.9	-0.7
New Brunswick	6471	9259	7349	7589	7456	40.7	16.9	3.3	-1.8
Quebec	44709	52808	57330	59160	56825	18.1	8.6	3.2	-3.9
Ontario	55452	78734	86413	78067	78825	42.0	9.8	-9.7	1.0
Manitoba	7533	8811	10251	10510	10185	17.0	16.3	2.5	-3.1
Saskatchewan	7189	9329	9698	8456	8455	15.9	4.4	-2.8	0.0
Alberta	16108	19583	21461	21428	21988	29.7	9.5	-0.2	2.6
British Columbia	17821	22201	28696	29974	28004	26.0	20.2	8.5	-3.3
Canada	**164386**	**210773**	**234128**	**229990**	**227651**	**28.5**	**11.1**	**-1.8**	**-1.0**

Notes: (a) Inter-provincial duplicate registrations have been removed; the data refer to responses received from the registration form.

(b) The term "not employed in nursing" comprises nurses who are employed in other occupations, nurses who have left the workforce, and nurses who are unemployed. It excluded nurses whose employment status is not reported. (c) Figures refer to only those nurses who registered in Canada during the first four months (three months in Quebec) of the registration renewal period. This fact, and editing with a simplified method for eliminating inter provincial duplicates, hinder comparison with previous years. Numbers include only nurses registered in the same province as that in which they work or reside.

Sources: 1982, 1987, 1992: Minister of Supply and Services Canada, 1995.
1997 and 1998: Canadian Institute for Health Information, preliminary data.

Table 2: Population per Registered Nurses employed in Nursing in Canada, Canada, by Province of Employment, 1982-1998

Table 2: Population per Registered Nurses employed in Nursing in Canada, Canada, by Province of Employment, 1982-1998

Provinces	1982	1987	1992	1997	1998	Tx. 1982-1987 (%)	Tx. 1987-1992 (%)	Tx. 1992-1997 (%)	Tx. 1997-1998 (%)
Newfoundland	141	134	114	108	105	-5.0	-14.9	-5.1	-3.3
Prince Edward Island	160	120	105	107	108	-25.0	-12.5	2.0	1.0
Nova Scotia	125	108	101	110	112	-13.6	-6.5	9.3	1.2
New Brunswick	160	116	102	100	102	-27.5	-12.1	-1.6	1.9
Quebec	148	129	125	125	131	-12.8	-3.1	0.3	4.6
Ontario	163	124	124	146	147	-23.9	0.0	17.8	0.4
Manitoba	140	125	109	109	113	-10.7	-12.8	0.0	3.7
Saskatchewan	139	124	115	121	122	-10.8	-7.3	5.3	0.5
Alberta	158	125	123	133	132	-20.9	-1.6	8.0	-0.8
British Columbia	165	139	131	136	143	-15.8	-5.6	3.6	5.6
CANADA	**154**	**127**	**122**	**132**	**134**	**-17.5**	**-3.9**	**7.9**	**2.1**

Sources: *1982, 1987, 1992: Minister of Supply and Services Canada, 1995. Table 2*
Population in 1997 and 1998: Demography Division, Statistics Canada

pop	1997	1998	pop	1997	1998
nfld	563.6	558.6	man	1145.2	1151.1
pei	137.2	138.1	sask	1023.5	1028.1
ns	947.9	952.4	alta	2847	2896.8
nb	762	763.1	bc	3933.3	4013.4
que	7419.9	7455.9	can	30286.6	30618.9
ont	11407.7	11561.2			

Table 3: Place of employment of Registered Nurses employed in nursing, Canada, 1985-1998

Table 3: Place of employment of Registered Nurses employed in nursing, Canada, 1985-1998

Year	Hospital	(%)	Nursing home Home for aged	(%)	Comm. health Home care	(%)	Phys. office Fam. pract.	(%)	Educ. inst	(%)	Other	(%)	Total
1985	145,159	74.7	13,020	6.7	18,370	9.5	5,203	2.7	5,396	2.8	7,213	3.7	**194,361**
1988	155,300	73.8	14,709	7.0	21,075	10.0	5,410	2.6	5,744	2.7	8,268	3.9	**210,506**
1991	165,298	72.6	18,006	7.9	20,402	9.0	5,934	2.6	6,017	2.6	12,032	5.3	**227,689**
1993	160,038	67.9	25,278	10.7	21,817	9.3	5,807	2.5	6,693	2.8	15,997	6.8	**235,630**
1996	148,647	65.2	28,178	12.4	23,661	10.4	5,763	2.5	5,611	2.5	15,970	7.0	**227,830**
1997	145,688	64.1	27,766	12.2	25,589	11.3	5,865	2.6	5,366	2.4	17,073	7.5	**227,347**
1998	142,043	63.2	26,987	12.0	26,194	11.7	5,881	2.6	5,007	2.2	18,492	8.2	**224,604**

Notes: *The data reported by Statistics Canada were adjusted as follow:*
Quebec numbers for 1991 were estimated by interpolation of numbers reported for Quebec in 1990 and 1992.
Data in the "other" category included nursing working in business/industry, private nursing, self-employed, association/government and a residual other category. Not reported data for Quebec in 1996 were re-allocated in proportion to the reported data. All remaining not reported data were allocated to workplace in proportion to the reported data The data not stated are excluded.

Sources: *Health Canada*
1997 and 1998: Canadian Institute for Health Information, preliminary data.
1992 to 1996: Rytten, 1997.

Table 4: Number of Licensed Practical Nurses, Canada, by Province of Licensure, 1982-1998

Table 4: Number of Licensed Practical Nurses, Canada, by Province of Licensure, 1982-1998

Provinces	1982	1987	1992	1997	1998	Tx. 1982-1987 (%)	Tx. 1987-1992 (%)	Tx. 1992-1997 (%)	Tx. 1997-1998 (%)
Newfoundland (a)	1,940	2,379	2,817	2,838	2,797	22.6	18.4	0.7	-1.4
Prince Edward Island	487	523	630	617	631	7.4	20.5	-2.1	2.3
Nova Scotia	3,232	3,388	3,320	3,220		4.8	-2.0	-3.0	
New Brunswick (b)	2,187	2,172	2,334	2,517		-0.7	7.5	7.8	
Quebec (c)(d)	18,519	20,029	19,667	18,082	16,617	8.2	-1.8	-8.1	-8.1
Ontario	33,931	34,491	35,516	34,623		1.7	3.0	-2.5	
Manitoba (e)	3,676	3,877	3,657	2,488		5.5	-5.7	-32.0	
Saskatchewan	2,366	2,477	2,682	2,187		4.7	8.3	-18.5	
Alberta (f)	7,254	7,894	6,545	4,723	4,606	8.8	-17.1	-27.8	-2.5
British Columbia	7,554	6,189	6,390	5,385		-18.1	3.2	-15.7	
CANADA	**81,310**	**83,610**	**83,749**	**76,680**		**2.8**	**0.2**	**-8.4**	

Notes: (a) No licensure, these figures represent the number of active, fully qualified nursing assistants. (b) Includes approximately 359 inactive members in 1982, 326 in 1987, and 522 in 1992. (c) Fiscal year ending March 31 of Following year. (d) The profession of nursing assistant is a restricted profession but has no exclusive field of activity. It may be then that there are in Quebec some persons occupied with similar functions, without always using the title of nursing assistant and without being members of the corporation. (e) Include 521 inactive members in 1982; 357 in 1987; and 388 in 1992. (f) Commencing in 1991, practical nurses in Alberta years to qualify as "Licensed" therefore the data decrease significantly had to have logged a minimum.

Sources: 1982, 1987, 1992: Minister of Supply and Services Canada, 1995.
Quebec in 1997 and 1998: Ordre des infirmières et infirmiers auxiliaires du Québec, Rapport annuel, 1998, 1999.
1997 and 1998: Canadian Institute for Health Information, preliminary data.

Table 5: Population per Licensed Practical Nurses, Canada, by Province of Licensure, 1982-1998

Table 5: Population per Licensed Practical Nurses, Canada, by Province of Licensure, 1982-1998

Provinces	1982	1987	1992	1997	1998	Tx. 1982-1987 (%)	Tx. 1987-1992 (%)	Tx. 1992-1997 (%)	Tx. 1997-1998 (%)
Newfoundland	299	242	206	199	200	-19.1	-14.9	-3.6	0.6
Prince Edward Island	256	248	208	222	219	-3.1	-16.1	6.9	-1.6
Nova Scotia	268	265	278	294		-1.1	4.9	5.9	
New Brunswick	326	337	321	303		3.4	-4.7	-5.7	
Quebec	357	341	365	410	449	-4.5	7.0	12.4	9.3
Ontario	266	284	301	329		6.8	6.0	9.5	
Manitoba	287	284	304	460		-1.0	7.0	51.4	
Saskatchewan	422	417	374	468		-1.2	-10.3	25.1	
Alberta	330	310	404	603	629	-6.1	30.3	49.2	4.3
British Columbia	384	500	548	730		30.2	9.6	33.3	
CANADA	**312**	**319**	**341**	**395**		**2.2**	**6.9**	**15.8**	

Sources *1982, 1987, 1992: Minister of Supply and Services Canada, 1995. Table 3.*
Québec in 1997 and 1998: Ordre des infirmières et infirmiers auxiliaires du Québec, Rapport annuel, 1998, 1999.

Table 6: RN and LPN Employment and Ratios, Canada, by Provinces (1997)

	RN	LPN[2]	Ratio of RN to LPN
Newfoundland	5,210	2,838	1.8 : 1
PEI	1,281	617	2.1 : 1
Ontario	78,067	34,623	2.3 : 1
Nova Scotia	8,587	3,220	2.7 : 1
New Brunswick	7,589	2,517	3.0 : 1
Quebec	59,160	18,082	3.3 : 1
Saskatchewan	8,456	2,187	3.9 : 1
Manitoba	10,510	2,488	4.2 : 1
Alberta	21,428	4,723	4.5 : 1
BC	28,974	5,385	5.4 : 1
Canada	229,990	76,680	3.0 : 1

Source: Dussault, G. et al. *The Nursing Labour Market in Canada: Review of the Literature* (1999); based upon statistics collected by nursing regulatory bodies for the Canadian Institute for Health Information (CIHI). In, *Licensed Practical Nurses and Care Aides in BC: Research on Roles and Utilization* (2000). Refer to page 2.

[2] The title LPN is the official title used in the following provinces/territories: YK, BC, AB, MB, SK, NS, NF and PEI. Other titles include RPN (ON), RNA (NB, QC) and CNA (NWT).

CANADIAN REVIEW OF NURSING HOME DIRECT CARE STAFFING STANDARDS – FEBRUARY 2001

Table 7

RESULTS	British Columbia (1997-not updated)	Alberta (1997-not updated)	Saskatchewan	Manitoba	Ontario	Quebec (1997-not updated)	New Brunswick	Prince Edward Island	Newfoundland	Nova Scotia
Levels of Care Classification	Yes PC, IC 1-3, EC	Yes A-G	Yes Levels 1-4	Yes Levels 1-4	Yes A-G	No	Yes I-V	Yes 1-5	Yes 1-5	Yes I-II
LEVEL I Direct Hrs. of Care RN:LPN:PCW	N/A	Yes	N/A	0.5 paid hours 10 0 90	N/A	N/A	Moving to Community not in Nursing Home	0.5 hours	0-1 worked hr /client /24hrs 100% PCW	N/A
LEVEL II Direct Hrs. of Care RN:LPN:PCW	2 paid hours Minimum of 24 hr RN Coverage	2.8 paid hours Min 22% RN others discretionary	0.75 hours Ratio decided by individual facility	2.0 paid hours 10 20 70	$49.99/day in nursing envelope Ratio up to homes CMI = 100	1 - 2.5 paid hours (average) 20 40 40 1 RN/unit on days Reduced coverage at night	2.5 worked hours RN RNA PCW 20 40 40	1.25 hours	1-2 worked hr /client /24hrs 100% PCW	Min. 1.0 hours of PCW plus some RN and LPN Not well documented 15:20:65
LEVEL III Direct Hrs. of Care **RN:LPN:PCW**	2.5 paid hours 1 RN per Unit on Floor	2.8 paid hours Min 22% RN others discretionary	2.0 hours Ratio decided by individual facility	3.5 paid hours 20 15 65	$49.99/day in nursing envelope Ratio up to homes CMI = 100	2.5 - 3 pd hr avg 1 RN/Unit 20 40 40	2.5 worked hours RN RNA PCW 20 40 40	2.25 hours	2-3 worked hrs /client /24hrs 20% RN 80% LPN/PCW	Min. 2.1 hours of PCW plus some RN and LPN Not well documented 17:13:70
LEVEL IV Direct Hrs. of Care RN:LPN:PCW	3 paid hours Nursing Home and Hospital Care	2.8 paid hours Min 22% RN others discretionary Some in Nursing Homes most in Auxiliary Hospitals	3.0 hours Ratio decided by individual facility	3.5 paid hours 20 15 65 Mainly extended treatment centres and hospitals	Level G cared for in "complex continuing care" beds in hospitals	3+ pd hrs avg 20 40 40 Hospital Care	Ext. Care Units in hospitals Extramural may go into NH to do IV therapy for hydration or antibiotics	3.0 - 3.8 worked hrs	3-3.2 worked hrs /client /24hrs 20% RN 80% LPN/PCW	Hospital Care
Hours of Care including Paid Hours, Benefits and Nursing Admin. and Staff Ed.			Decided by individual facility		Included in $49.99 per day envelope		Assigned by individual facility		Ratios do not include non-direct care hours	Includes Paid Hours
Nursing Admin. **Guidelines**	N/A	60+ beds 1 FTE	Decided by Districts	0-50 beds 1 FTE Administrator/DOC 50-199 1 FTE DOC 200+ additional positions	< 20 beds = 4 hrs/week 20-80 beds = various > 80 beds = 40 hrs/week	N/A Individual Review	1 FTE Director of Nursing for each home	1 FTE / 100 beds	No specific guidelines	Individual Review

CANADIAN REVIEW OF NURSING HOME DIRECT CARE STAFFING STANDARDS – FEBRUARY 2001 TABLE 8A

RESULTS	British Columbia (1997-not updated)	Alberta (1997-not updated)	Saskatchewan	Manitoba	Ontario	Quebec (1997-not updated)	New Brunswick	Prince Edward Island	Newfoundland	Nova Scotia
24 hour RN coverage?	Yes	Yes	No, not in all cases Exceptions are 30 beds or less 12 hour RN/RPN Light Care Facility 8 hours RN/RPN RPN = Reg. Psychiatric Nurse	Yes	RN required on day shift Most LTC facilities have 24 hour coverage Some smaller facilities do not provide 24 hour RN coverage	Yes	Yes	Yes	Yes	Yes
LPN dispense medications? **What % of facilities use LPNs in the way?**			Yes Unknown	Yes 100%	Registered Practical Nurses are permitted to dispense medications		RNA can administer medications as a delegated RN function 80%	No N/A	Training includes skills to administer meds Decision to allow this is up to regional boards One boards allows this in nursing homes only	Yes, if trained
Does LTC legislation mandate provision of other care providers (e.g. physiotherapy, OT, social work, etc.)?			No	No	Recreation Therapy 1 FTE/60 residents Dietitian = 15 min. per resident/month Food Service Supervisor = 8 hrs/week per 30 meal days		Only nursing is legislated	Only nursing is legislated	PT/OT, Recreation Therapy and Social Work 1 FTE / 75 residents	No standard. Varies by home. Limited access and availability
Have universal LTC resident-staff ratios been implemented?			No	No	No		Yes 2.5 worked hours RN RNA PCW .20 .40 .40 Specialized care needs can receive up to 4.2 hours with a different ratio 17% 62% 21%	No	No	No

CANADIAN REVIEW OF NURSING HOME DIRECT CARE STAFFING STANDARDS – FEBRUARY 2001 **TABLE 8B**

RESULTS	British Columbia (1997-not updated)	Alberta (1997-not updated)	Saskatchewan	Manitoba	Ontario	Quebec (1997-not updated)	New Brunswick	Prince Edward Island	Newfoundland	Nova Scotia
Are there standards or frameworks governing LTC resident staff ratios? **If no, are they plans to establish such ratios?**			No No	No No	None No		See above	No	No	No
What are the main issues facing LTC in your province?			1 resident/staff ratios 2 recruiting 3 retention 4 scheduling	1 recruiting 2 increased complexity and acuity of residents 3 scheduling 4 retention 5 equipment	1 recruiting 2 funding 3 retention 4 scheduling		1 recruiting 2 retention 3 access to equip 4 physician recruitment and retention 5 access to rehab specialists	1 recruiting 2 retention 3 scheduling	1 aging infrastructures 2 home support funding for a growing wait list	1 recruiting 2 retention 3 scheduling 4 access to equip
Contact Person			Denise Patterson, Program Consultant, Sask. Government dpatterson@health.gov.sk.ca	Marian Pringle, Policy Consultant Manitoba Government mpringle@health.gov.mb.ca	Joan Kennedy Program Consultant Min. of Health and Long Term Care Ontario joan.kennedy@moh.gov.on.ca		Susan Barrie, Project Manager, Nursing Home Services, New Brunswick susan.barrie@gnb.ca	Marilyn Kennedy Long Term Care Coordinator Dept. of Health & Social Services, PEI mskennedy@hss.org	Linda Doods Manager, Seniors Programs Dept. of Health & Community Serv Newfoundland ldoody@mail.gov.nf.ca	Wade Were Senior Policy Analyst, Long Term Care Dept. of Health wereww@gov.ns.ca

Resident Assessment Instrument (RAI) Demonstration Project

Information Session to the
Task Force on Staffing in Long Term Care

September 28, 2000.

Background

- NS's Assessment Tool
  - little utility, just used to determine eligibility to homes
  - uses 2 broad classification levels
  - weak link to funding
  - not valid or reliable

- CCC Assessment Tool
  - new tool developed by LTC Working Group in 1995
  - uses 4 classification levels, associated staffing standards
  - questionable validity and unacceptable reliability
  - recommended adopt a tool from another jurisdiction

The RAI Components

- Resident Assessment Instrument (RAI)
  MDS+Instructions+RAPs

- Minimum Data Set (MDS)
  assessment data collection form

- Resident Assessment Protocols (RAPs)
  clinical algorithms to support care planning

MDS 2.0 Assessment Categories

- Demographic background
- Cognitive Patterns
- Communication/hearing
- Vision patterns
- Mood & behavior patterns
- Physical functioning
- Continence
- Disease diagnosis
- Health conditions and pain
- Nutrition/hydration status
- Dental status
- Skin conditions
- Service/treatment utilization
- Activity pursuit patterns
- Medications
- Discharge potential

Resident Assessment Protocols

- Mood State
- Pressure Ulcers
- Falls
- Visual Function
- Cognitive Loss/Dementia
- ADL Function/Rehab
- Urinary Incontinence/Catheter
- Nutritional Status
- Communication
- Behavior Symptoms
- Psychological Well Being
- Dehydration/Fluid Maintenance
- Delirium
- Activities
- Dental Care
- Feeding Tubes
- Physical Restraints
- Psychotropic Drug Use

Other Applications that Use the MDS Data

- Quality Indicators
  - 24 markers that indicate either the presence or absence of potentially poor care practices or outcomes
- Outcome Measures
  - several scales that measure the change in a resident's condition over time
- Resource Utilization Groups (RUGS)
  - an algorithm that categories residents into 44 groups based on the resource intensity of their care needs

Quality Indicators

Prevalence of falls
Prevalence of behavioral symptoms affecting others (high & low risk)
Prevalence of symptoms of depression
Prevalence of depression without antidepressant therapy
Use of 9 or more different medications
Incidence of cognitive impairment
Prevalence of bladder or bowel incontinence (high & low risk)
Prevalence of occasional or frequent bladder or bowel incontinence without a toileting plan
Prevalence of indwelling catheters
Prevalence of fecal impaction
Prevalence of urinary tract infection
Prevalence of weight loss
Prevalence of tube feeding
Prevalence of dehydration
Prevalence of bedfast residents
Incidence of decline in late loss ADLs
Incidence of decline in ROM
Prevalence of antipsychotic use with absence of psychotic & related conditions (high & low risk)
Prevalence of antianxiety/hypnotic use
Prevalence of hypnotic use more than two times in last week
Prevalence of daily physical restraints
Prevalence of little or no activity
Prevalence of Stage 1-4 pressure ulcers (high & low risk)

Outcome Measurement Scales

- Fully Developed Scales
  - Cognitive Performance Scale
    - ↙ validated against the MMSE
  - Depression Rating Scale
    - ↙ validated against the Hamilton
  - ADL Self Performance Hierarchy Scale
    - ↙ validated against the Barthel's
  - Index of Social Engagement

- Others in development

RUGS

- Algorithm
  - uses a 1/4 of the data elements from MDS 2.0
  - creates 7 clinical categories and 44 levels
- Case Mix Indices
  - each RUGS classification level has an index which shows the relative use and cost of resources compared to all the other RUGS classification levels
  - developed with time study data and weighted by average salary information
  - RUGS has been tested to be reliable in several countries

Integration - The RAI Family

- Chronic care/nursing homes
  - RAI 2.0
- Home Care
  - RAI-HC
- Mental Health
  - RAI-MH
- Others in earlier stages of development
  - RAI-AC, RAI-PAC, RAI-PAL
  - RAI-AL/RC

- *inter*RAI's goal is a "seamless" assessment system across multiple health care settings.
- Each instrument is designed for its health care sector
- Common core elements in all instruments
- Health Transitions Fund grant to test the integration of the 2.0, HC, and MH tools in Ontario

The RAI 2.0 Canada & Abroad

- Ontario
  - Mandated for chronic care since 1996
  - Plan to use it for funding facilities in 2001
- Saskatchewan
  - Mandated Use, April 2001
- Alberta
  - Recommend Adoption
- Manitoba
  - Pilot tests of 2.0
  - Seeking funding to go province wide
- Yukon
  - Mandated 2.0
- British Columbia
  - Plan to role out 2.0 in 7 Regions in April 2001
- Newfoundland & NB
  - Looking at instrument
- Abroad
  - Mandated for use in USA & Iceland nursing homes
  - Tested or used in parts of 17 other countries
- CIHI
  - Endorsed 2.0 in 2000

Common Misconceptions

- The RAI is not a care plan

  The tool provides data that clinicians can use for care planning. It does not create a care plan for you.

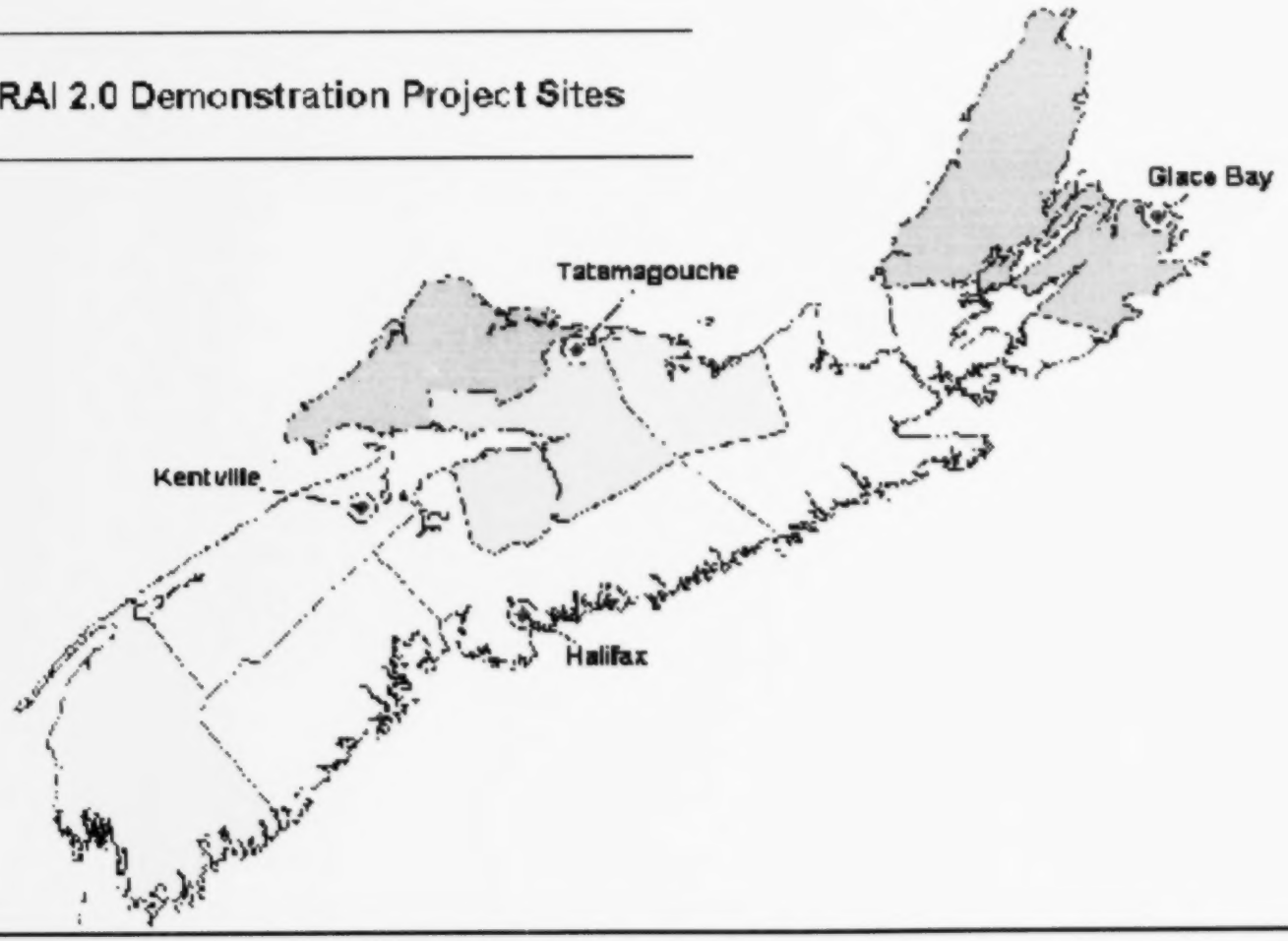
- RUGS is not a Payment System

  RUGS tells how to equitably divide the pie, it does not dictate the size of the provincial nursing home budget.

- RUGS is not a Placement Instrument

  The RAI is administered once a person is admitted to a nursing home. It is not used to determine eligibility.

RAI 2.0 Demonstration Project Sites



Demonstration Project Overview

- Scope:
  - 4 homes, about 60 residents in each
  - one full assessment and 2 quarterlies
  - data entered on one PC at each site - linked to DoH
  - external evaluation by Mount St. Vincent University
- Overall Objectives:
  - gather information to support provincial implementation
  - create greater RAI 2.0 awareness & gauge satisfaction
- Timeline:
  - final evaluation report in December 2000

Toward Province Wide Implementation

- Selected evaluation questions from the Demo Project
  - To what extent has the RAI 2.0 impacted, or expected to impact, the quality of care planning?
  - Was the training & ongoing support on the RAI tool and software sufficient to meet the care providers needs during the project?
  - How long does it take before care providers become efficient in the completion of the MDS 2.0 assessment form?
  - Once the learning curve is overcome, how long does one assessment form take to complete, on average?
  - Were the users satisfied with the functionality of the software?
- Internal effort to answer other key implementation questions
  - What computer hardware and data management systems will be used?
- Decision to be made in new year on provincial roll-out

APPENDIX 'D'

The Resident/Staff Ratio Task Force consisted of the following participants. Not everyone was able to attend all of the meetings but all of the participants had an opportunity for input and a representative of each organization has signed on behalf of their organization.

Kelly Murray	Canadian Union of Public Employees
Linda Thurston-Neeley	Canadian Union of Public Employees
Maureen Ethier	Canadian Union of Public Employees
Betty Jean Sutherland	Canadian Union of Public Employees
Joyce King	Canadian Union of Public Employees
Joe Courtney	Canadian Union of Public Employees
Cathy Dauphney	Canadian Union of Public Employees
Gerard Higgins	Service Employees International Union
Valda Acker	Service Employees International Union
Vivian Breen	Nova Scotia Nurses' Union
Winnie Kettleson	Nova Scotia Nurses' Union
Norm Earl	International Union of Operating Engineers
Ken Taylor	National Automobile, Aerospace, Transportation & General Workers Union
Jim Guild	Nova Scotia Government and General Employees Union
Krista Caldwell	Nova Scotia Government and General Employees Union
Phil Veinotte	Nova Scotia Association of Health Organizations
Leslie Buchanan-Larrea	Nova Scotia Association of Health Organizations
Dave Kerr	Nova Scotia Association of Health Organizations
Debra Leigh	Continuing Care Association of Nova Scotia
Barb Anderson	Employer Representative
Gael Page	Employer Representative
Anne Kennedy	Employer Representative

Archie MacKeigan	Employer Representative
Lorna Crocker	Employer Representative
Rick Anderson	Department of Health
Dean Hirtle	Department of Health
Soili Helppi	Department of Health
Paula Withrow	Department of Health
Julie Quigley	Department of Health

Respectfully submitted on behalf of the participants:

Canadian Union of Public Employees (CUPE)	**Date**
National Automobile, Aerospace, Transportation and General Workers Union of Canada (CAW)	**Date**
Nova Scotia Nurses' Union (NSNU)	**Date**
International Union of Operating Engineers (IUOE)	**Date**
Service Employees International Union (SEIU)	**Date**
Nova Scotia Government and General Employees Union (NSGEU)	**Date**
Nova Scotia Association of Health Organizations (NSAHO)	**Date**
Continuing Care Association of Nova Scotia (CCANS)	**Date**
Employer Representative (Ocean View Manor)	**Date**
Employer Representative (Northwood Care Inc.)	**Date**
Employer Representative (MacLeod Group)	**Date**
Employer Representative (The Cove Guest Home)	**Date**
Employer Representative (R.K. MacDonald Nursing Home)	**Date**
Department of Health	**Date**